# WORKING WITH OLDER PEOPLE

## Volume I: THE PRACTITIONER AND THE ELDERLY

a guide to practice

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MENT OF HEALTH, EDUCATION, AND WELFARE • PUBLIC HEALTH SERVICE

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, Public Health Service,
Health Services and Mental Health Administration, Community Health Service,
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This comprehensive body of knowledge should prove valuable in the development of continuing education activities for all health practitioners who serve the aged.

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The passage of Title XVIII and Title XIX of the Social Security Act was a major step forward in helping to assure that every American gets the health care he needs in late life.

But Medicare and expanded medical assistance are basically financing mechanisms. They spell out the kinds and extent of benefits that will be paid for in hospitals, nursing homes, physicians' offices, and patients' homes.

How these benefits are used—we are speaking of the thoughtfulness and quality of care given to patients—is up to you, the practitioners.

Whether you work with the latest knowledge, whether you work together or separately, whether you comprehend the nature of the aged patient and adjust therapy to individual needs—these elements are beyond law. They are matters of professional viewpoint, skill, and conscience.

Practitioners can utilize the new legislation and other resources for the care they deem necessary. The content of that care is the concern of this series of volumes for practitioners. By practitioners we mean the physician, nurse, physical therapist, podiatrist, medical and psychiatric social worker, nurse's aide, nutritionist—in short all those who render service professionally or under professional guidance to the patient.

You have in your hands the first of four volumes in the series "Working with Older People: A Guide to Practice." This introductory volume discusses aging and the world of practice related to aging. The second volume, entitled "Biological, Psychological, and Sociological Aspects of Aging," will contain brief overviews of each aspect as well as more extended reviews and bibliographies for health practitioners desiring in-depth treatment of these subjects. Volume III, "The Aging Person: Needs and Services," will deal with social welfare as it relates to health status of the elderly. The fourth volume, "Clinical Aspects of Aging," will consist of: (1) a section dealing with disease conditions most relevant to single organ systems of the elderly; (2) a section dealing with the subjects of metabolism, nutrition, rehabilitation, drug therapy, and laboratory values; and (3) a section dealing with special professional practices and the elderly person, including surgery, dentistry, nursing, physical therapy, occupational therapy, and podiatry.

The purpose of the series is to provide a basis for curricula that can be used in workshops or institutes given by staffs of hospitals, nursing homes, and other institutions and agencies. A medical society or professional group might base a series of meetings on appropriate portions of these volumes.

This introductory volume covers various aspects of geriatrics, the treatment of older people. Its aim is to help the practitioner understand his elderly patient and the accompanying physical, mental, and social changes that come with age. It offers a background to help the practitioner in community planning of services for the elderly. There is—or should be—more to geriatrics than attempts to cure and restore. Health maintenance belongs in geriatrics, and therefore in this volume.

The combination of maintenance and other efforts makes for comprehensive geriatrics—simply, comprehensive health care for older people. Unfortunately, there is not a sufficient number of professionals or facilities to permit the practice of comprehensive geriatrics to any degree approaching the need posed by a growing population of elderly.

The idea behind comprehensive geriatrics is that the health of the older person is influenced by many factors. Economic, social, and behavioral factors as well as physical condition must be taken into account. The older person is more vulnerable than a young person to illness, accident, social and economic loss. This

makes the job of health maintenance both difficult and crucial. For instance, the patient who comes to a doctor complaining of a bad cold may lack proper nutrition and proper housing, both reflections of economic deprivation. To prescribe for the cold may be responsive to the complaint but not to the needs of the whole patient. He may need referral to welfare agencies, health educators, housing authorities, or a home-delivered meals service.

Doing the whole job of keeping the patient well—that is, doing comprehensive geriatrics well—often must involve many practitioners, not only health practitioners but such health-related practitioners as ministers, welfare workers, and housing officials. Home-delivered meals, friendly visitors, day-care centers, nursing homes, mental health and rehabilitation centers, multiple screening facilities, medical social work, public health nursing, hospitals—all these and more should be available for comprehensive geriatrics.

You will read about the Sinai Hospital Aging Center in Baltimore and the Queensbridge Health Maintenance Service in New York City. These are examples of facilities that practice comprehensive geriatrics. Other examples could be named in various parts of the country. Adding up their patient populations and comparing them to the total of 20 million persons aged 65 years and over in this country would indicate the immense task before us. Not only hospital-based arrangements but other integrated approaches are needed. Arrangements to suit local needs, resources, and potentials to implement comprehensive geriatrics will have to be devised.

Programs like Medicare undoubtedly will spur physicians and other practitioners to establish new foci for their efforts or expand existing ones. Practitioners should examine not only Medicare but also other Federal, State and local laws to see where support exists for geriatric objectives.

This is not the place to detail the benefits and opportunities in Medicare. (For more information, consult the Bureau of Health Insurance of the Social Security Administration; Community Health Service of the Health Services and Mental Health Administration, Public Health Service; and other Federal and local agencies.)

However, let us point out that Medicare reimburses providers of care under the basic hospital benefits program on the basis of reasonable cost. In other words, providers of care are assured of reimbursement for certain services as part of Medicare's hospital, post-hospital extended-care, and post-hospital home-health benefits. In addition to benefits of the basic plan, Medicare offers a supplementary medical insurance plan to the elderly who sign up and pay a monthly premium (or whose payments are taken care of under public assistance). Attention should be paid to psychiatric benefits available under Medicare, including limited outpatient service.

The Public Health Service operates programs for community health services and mental health activities. It has large resources for technical information. A coordinator for health of the aging is located in the Division of Health Care Services of the Community Health Service: inquiries on geriatrics, gerontology, and related information may be directed to this office.

We believe a climate now exists in which practitioners can try to realize aspirations in comprehensive geriatrics. Progress in this area could do much to help us attain the goal of assuring the availability and accessibility to the best care for all Americans, regardless of age or geography or economic status.

In June 1962, the Public Health Service contracted with the Gerontological Society for the development of a curriculum in applied gerontology. The materials in this volume and in the volumes to follow are the product of that project.

Our assigned target for these curriculum materials was the health and health-related practitioner, as distinguished from the student. We were concerned with continuing education, in-service training and, in certain semiskilled functions, with on-the-job training.

From the point of view of fields of practice, the curriculum project can be divided into two broad areas:

- Clinical medicine, which includes physicians, psychiatrists, dentists, nurses, and the rehabilitation-centered fields such as physical and occupational therapy;

- Social welfare, which here refers to the nonmedical fields and includes the practitioners in social work, health planning, housing, public welfare, recreation, administrators of congregate care facilities; also ministers, architects, home economists—in short, all fields that have any direct contact, in terms of service, with aged persons and their families.

*Content*

By content, the materials fall into four broad categories:

A broad frame of reference in which we attempt to look at aging in biological, psychological and sociological terms;

Clinical medicine, where we look at aging in terms of disease and disability, and deal with diagnosis, treatment, management, rehabilitation;

Social welfare, which addresses itself to the needs of human beings as they age and how these needs are met: food, shelter, clothing, leisure time, protection, care, and similar areas of need;

Health maintenance, where our concern is with keeping well people well, with maintaining physical and social effectiveness, and with keeping the aging independent. Here we deal with such areas as health education, multiple screening, immunizations, mental health, accident prevention, and utilization of community resources.

*Technique*

Our basic technique has three elements:

To identify the pertinent and useful knowledge in the disciplines that deal with aged persons and their families;

To relate, to integrate this knowledge so that problems confronting practitioners can be viewed in the context of the total person;

To organize this knowledge so that it can be used easily and effectively in the training and continuing education of practitioners.

*Identification of Knowledge*

We approached the task of identifying "pertinent and useful knowledge" from two directions:

1. *We asked the expert.* In meetings and conferences culminating in papers written specifically for the project, we asked the expert to tell us what knowledge in his particular discipline should be understood for effective work with aging and aged persons.

2. *We asked the practitioner.* We asked hundreds of practitioners in more than a score of disciplines what they thought they ought to know about aging. We asked about their experiences in working with the aged, the kinds of problems encountered, their successes, their frustrations, the settings in which they worked.

We sought a perspective on how much of the practitioner's problem was lack of knowledge and how much was attitude toward aging and the aged. We wanted to relate the knowledge being "identified" for us by the experts to the everyday working situations of the practitioners for whom this knowledge was being gathered.

*Integration of Knowledge*

The task of integrating knowledge has been approached in two ways:

1. *Within each broad area of practice*, namely medicine and social welfare; and

2. From the point of view of *the total human being.*

Thus, speaking of integration within a broad area of practice, every medical paper has been reviewed to be sure that the ultimate student or trainee will be aware of the impact of one disease entity on another, to know that the problem of the physician is not necessarily to treat a particular obvious disease condition but to recognize that he is probably confronted by several different diseases and dysfunctions, and to decide which he should treat first, or perhaps not treat at all.

Furthermore, nurses have to know more about what the speech therapist does; the speech therapist should know more about what the physical therapist does; the physical therapist should know more about what the physician does; and the physician should know more about what the nurse and the speech therapist and the physical therapist do and can do for his aged patient.

And, of course, they must all understand and be agreed upon the treatment goals for the patient whom they "share."

The goal of the second approach to integrating knowledge is to depict the aged individual as a total person—in his physical being and in relation to his family, to his community, to his personality, and to his capacity for adjustment and adaptation.

For example, we want to be sure that the physician understands stroke in terms of the psychological impact upon the patient and upon the family. We seek to make the physician aware of the resources he can use in dealing with the problems and situations resulting from his patient's stroke.

To achieve this kind of interrelatedness of knowledge, we arranged for each medical paper to be reviewed from a psychiatric and social work viewpoint and for each social welfare paper to be reviewed from a medical viewpoint.

*The End Product of the Curriculum Project*

Specifically, then, the Curriculum Project rests on:

1. Some sixty papers, most written especially for the project. In many instances they represent the only presentations of particular subjects, at least the only ones that are easily available in usable form.

2. For each subject, in addition to the paper or papers covering this subject, there has been prepared a detailed outline which not only indicates

the nature and the sequence of elements of the content but also is a digest of that content.

3. Each subject has been reviewed to assure inclusion and integration of the pertinent medical, psychological and social factors.

4. Each subject is backed up by a bibliography of appropriate and available references.

*Problems in Practitioner Education*

Our experience enables us to identify some of the problems involved in education and training. And, in a kind of ex post facto way, the goals of the curriculum project might be described as our attempts to solve some of these problems.

We have sought to identify the working situations of practitioners so that knowledge can be related to the realities of practice. At the same time, we have attempted to identify gaps of knowledge and understanding on the part of practitioners in one field about other fields of practice. Some of the major questions we asked of the various practitioners were:

a. Who does what where? For example, what does a physical therapist do and where and how does he do it?

b. What is the role of one field of practice in relation to another? If I am a social worker or speech therapist, how does what I am doing relate to what a physical therapist is doing with my client or patient?

c. In what different working situations can the knowledge and skills of a particular field of practice be applied?

This question is important because the aged—and their problems—are found in the widest possible variety of living and care situations. Can the physical therapist—trained and experienced in working, for example, in a rehabilitation hospital with equipment and other resources immediately at hand—bring his skills into the patient's home, into a home for the aged, into a recreation center?

d. How much of the other practitioner's knowledge and skill does one need to acquire?

Would it be helpful to the social worker to know a little about speech therapy, enough to give a little extra push to what the speech therapist is trying to accomplish with a particular case? Do we need a little more generalism in working with the aged, especially in view of the shortage of personnel in many areas of practice? Is it possible—and desirable—to develop a "specialty" of general care to meet the needs, for example, of nursing homes? (I, for one, am convinced that practitioners in all fields can do many more things than they are permitted by the present definitions of their respective roles.)

Practitioners are problem-centered and disease-oriented in working with the aged.

Perhaps the most significant consequence of this approach is the too-little concern for that vast majority of persons 65 years of age and over who are in reasonably good health and who manage to function with reasonable independence despite whatever disabilities they may have.

In many instances, practitioners do not seem to understand that in addition to their role with sick and disabled persons, their knowledge and skills can also help to keep the well aged well and the functioning aged functioning. In other instances, practitioners either reject responsibility toward the well and functioning aged or plead overcommitment to acute cases.

*Problems in Developing Materials and Curricula*

As part of our efforts to get some perspective on the needs of practitioners, we surveyed the training of practitioners. This limited survey supported our convictions about particular needs and problems in developing training and educational materials for work with the aging.

1. There is a lack of readily available and easily usable texts, both books and papers, on aging in general and about specific subjects in aging.

2. There seems to be a considerable confusion about terminology.

This problem is further compounded by a certain delicacy of expression in referring to old people. Thus, we speak of "the elderly," "the aged," "the aging," "senior citizens," "the 65-and-over population," "golden agers", and even about "geronds." We have difficulty describing those old or older persons who are not acutely ill or disabled.

We are having difficulty also with the terms for institutions and functions. What is the difference between a nursing home and a home for the aged? What is a congregate care facility? How do we distinguish between problems of long-term care and chronic illness?

Part of the problem is inherent in the rapid changes that are taking place in our concepts of aging and in the programs and services being developed to deal with problems of aging. I suspect, however, that another factor is that we haven't been in the business of teaching and training long enough to have developed a commonly accepted language of aging.

3. Finally, we come to the questions related to the practical purpose of this project: What is the basic body of knowledge in aging? What should we be teaching? How much "hard" knowledge do we have? A collateral question is: What are "norms" in aging? And underlying all this is the question, more accurately the challenge: Is there in fact a special body of knowledge about aging?

*The Field of Aging: Specialization or Generalism?*

We have encountered great eagerness on the part of many practitioners to "learn more about aging." We have also encountered vigorous resistance to the very notion that there was anything special or specific to be known about aging. Very often, the more sophisticated the field of practice, the more vigorous has been the resistance.

I suspect that this resistance has some root in the fear that those who are promulgating training programs in aging are seeking to create specialties, to give official status to new types of practitioners who will be known as geriatricians in the case of medicine, geriatric social workers, geriatric nurses, and so on.

Personally, I would consider such specialization meaningless, certainly in the light of the trend towards generalism, a trend dictated by growing awareness of the interrelatedness of problems and solutions, whether in dealing with juvenile delinquency, with poverty, with health promotion or with the aged.

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*Mr. Rosen served as Director of the Curriculum Project from 1963 to 1967.

## GLOSSARY

The following concepts are defined to provide a common base of understanding:

*Aging:* A term used to describe the processes of biological, psychological and sociological change from one point of time to another.

*Aged:* A concept which fixes the individual at a point in time, usually age 65. This arbitrary age is used, not because of an actual change that takes place in the individual, but because it has become the usual age of "retirement" in our society.

*Biological Aging:* A term which describes the changes in biological processes with the passage of time, and the variations of degree and consequence of these changes from one individual to another.

*Chronological Aging:* The use of a birth date in defining an individual's age and, by implication, his appropriate social roles and functions.

*Geriatric:* Referring to the medical treatment of old age and its diseases.

*Gerontology:* The study of aging processes—from the Greek "geron," old man—originating in the biological sciences and expanding more recently into the social and behavioral sciences.

*Health Maintenance:* This term describes the goals and services related to disease prevention and the promotion and maintenance of maximum independence of function. Health maintenance utilizes such techniques and programs as disease detection (periodic health examinations, multiphasic screening), immunizations, mental health programs, accident prevention and health education.

*Psychological Aging:* Those changes and degrees of change in sensory function and perception, memory, learning, intelligence—as well as in the dynamics of personality.

*Senescence:* A state of growing old; physical aging.

*Senility:* A traditional term for degenerative change in old people, including illness and weakness, especially mental.

*Social Welfare:* Actions in response to a broad range of basic human needs—such as health, economic, leisure time and environmental needs—are social welfare actions. The individual, a group, or a community may be the target or combination of targets.

*Sociological Aging:* The changing roles, functions and status—as these are defined by the various social institutions, including family, economic, government, recreational, church, educational, and medical.

# OVERVIEW

PART I/*chapter one*

## OLD PEOPLE, NEW CHALLENGES

Our population is getting older; more and more people are living longer. The older the population, the more demands on physicians, hospitals and other resources. Three-fourths of the non-institutional population aged 65 or older have one or more chronic conditions. Almost two out of five have a chronic condition that puts some limit on activity.

The most prevalent diseases of the aged are cardiac, cerebral and arterial disease, mental and nervous disorders, cancer, and diseases of the joints. Where these are accompanied by disability or invalidism, they may take a heavy toll of the resources of the patient, the family and the community.

Stated in terms of "chronic conditions" and "most prevalent diseases," the process of aging would seem to lead inevitably toward debility, dependence and despair. However, if we look at aging in terms of capacity to function physically, mentally and socially, we see great resources for adaptation, great potential for independent and happy living.

*The challenge to practitioners is more than medical*

The aged patient is a continuing challenge. The physician and other practitioners—nurses, dentists, social workers, to name a few—must preserve what can be preserved, improve performance with symptomatic treatment and special aids, and never be discouraged because an outright cure is lacking.

Motivation is different in the aging from what it is in the young. The ambition and competitiveness of younger years is often succeeded by introspection and desire for security, even for dependency. Recovery from illness may be unconsicously retarded because it signifies renewal of old struggles. Nevertheless, the desire to live is still the fundamental motivation for most of us and is perhaps the major force assisting the practitioner in working with the elderly.

The goal of the physician—and this can be taken as a key to the goals of other practitioners—is to maintain structure without major loss, to try to promote ability to handle stress, and to help the patient attain and maintain the maximum physical and mental efficiency of which he is capable.

Medical treatment is not enough. We are increasingly aware of the relationship between the physical and the psychosocial factors in the lives of aged patients.

Practitioners should be aware:

- of the impact of retirement, loss of income and prestige, and dependency;
- that the elderly man keenly feels the waning of strength, lack of usefulness in society's eyes;
- that the elderly woman, perhaps widowed, may be overwhelmed by her loss, conscious of a fading place in her children's lives, and worried about diminished income and health;
- of the impact of these anxieties on physical condition and of physical condition on these anxieties;
- that health has a greater influence on a persons's concept of himself than does age;
- that personality changes and the psychological effects attributed to aging are in large measure reactions to health states rather than to chronologically determined processes alone;

—that factors of class, culture, economics inhibit the patient's obtaining or using proper medical care, and that these factors and the patient's attitudes toward health and aging must be understood by both practitioner and patient;
—that attitudes and definitions of health vary by social class, finances, country, culture, age, sex, occupation, and that many of these outlooks lead elderly people to accept certain symptoms and disabilities as natural or inevitable;
—that the elderly patient needs assistance in sustaining a sense of his worth and dignity;
—that we must treat the person, not the symptom.

*Aging is individual*

Older people are not alike. Their abilities, attitudes, and problems differ. Bodily changes occur differently and at different times in various individuals. These changes do not necessarily impair the efficiency of the body or lead to disease or death. To be sure, there are modifications with aging in the body's resiliency and power of adaptation and in its ability to function well under strain.

Not only does aging proceed at different rates in different individuals, it proceeds at different rates in different systems of the same individual. Manifestations of disease are modified to some extent by old age. People can reach extreme old age, however, in perfect health, with no evidence of earlier disease—provided they began with a favorable genetic endowment and lived in a favorable environment. Many others, however, bear the scars of earlier disease and deprivation.

*Problems of the aged are multiple.*

Death of a mate, loss of a job, illness—any one of these problems can occur at any age. However, the aged person often faces these problems simultaneously. Moreover, it has been observed that a complex of problems can interfere with the aged patient's well-being, usually at a time when emotional and physical resources may be low. This situation calls for the special interest, attitudes, and skills of the physician and other health practitioners.

It is quite common for old people to have more than one disease condition at the same time, and the possible combinations are many. The interaction of these conditions must be understood for the implications to management and treatment.

Illness and disability are not consequences of aging alone—there is always a disease process involved. "Old people are normal people who may become ill," it has been said. Like other normal people who become ill, they can be helped. The good physician manages his elderly patient with purpose and with hope.

*Health maintenance is a key consideration*

Our basic premise is that every health practitioner has a contribution to make to the health of the aging population. The relationship the practitioner has with older adults and their families permits him to influence their health habits and practices, regardless of his own field of specialization. By virtue of his place within the community's structure of agencies and services, the practitioner can also influence the community to have an active concern with health maintenance, not just a concern with acute illnesses as they occur.

Finally, the practitioner can influence himself; he can consider his own role in promoting and maintaining health.

*Health must be viewed in terms of function*

The vast majority of the elderly are not in poor health. They are not significantly dependent. They are not institution dwellers.

Some 95 percent of persons aged 65 or more live in the community. Many have ailments and disabilities of one sort or another. But they function. "Function" is a key word. When we talk about "wellness" and "health" as applied to the elderly, we mean the ability to function in the community with reasonable independence, despite ailments and disabilities.

Aging appears to involve a gradual increase in vulnerability to disease and a diminution of functional reserves. Thus, illness and disability are not caused by aging alone. While we cannot

reverse the human aging process, we can deal with specific diseases and their consequences. We can deal with them in terms of prevention, cure and rehabilitation. We can aim at achieving the maximum function and the maximum physical and social effectiveness of which the individual is capable.

Capabilities, personal needs, health status, attitudes and social conditions vary among the elderly as they do among the young. So, too, is there variety in ability to adjust, adapt, repair and restore. Although these abilities are modified with age, they are not lost.

*Obstacles to health maintenance*

A major block in realizing wellness occurs in social attitudes toward the elderly. In the United States, to be old is—in one observer's words—"to be no longer a member of adult society. . . . Their status is reduced and they (the elderly) recognize it. . . . Rejection and negligible status are obvious features of life."

The elderly person may internalize society's low value of aging. He may come to accept symptoms as natural consequences of his age. For instance, a recent study showed that only a few persons with chronic bronchitis severe enough to produce purulent sputum considered themselves ill and sought help. Poor people seek medical help only when illness interferes with daily activity. Apathy toward medical care is frequently related to the economic value placed on health in comparison with other expenditures. The frequent combination of old age and poverty is a clue to the obstacles to health maintenance.

*Goals for healthy aging are needed*

The World Health Organization views health as a "state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

Dr. Samuel Gertman has defined good health in the elderly as "a state in which there is maintenance of structure without major loss; a continued ability to handle stress, and the attainment and maintenance of the maximum degree of physical and mental vigor of which one is capable."

The Committee on Health Maintenance of the Curriculum Project, Gerontological Society, looks at healthy aging as the ability to function without more than ordinary help from others. They see it as the ability to function with, and despite, disabilities—as the capacity for adapting well.

There is need for continuing reexamination of health standards and goals as they relate to age changes. Too often the standards for old persons are merely those for younger persons—but lowered. Too often the goals are related only to the physical, omitting the emotional and intellectual. Too often the goals are defined in terms of changes and limitations; they neglect capacities and assets. Just as we are concerned with the physical, emotional and other factors that militate against health, we must study the factors that contribute to sound health adjustment.

Finally, wellness must be defined against the functional possibilities of the individual. Thus, an individual is not well if he is able to do more than perform the activities of basic living but does not go beyond this. Another individual is well because he can only do that much and is doing it.

If late life is to be fruitful, the aging individual, the physician and other health practitioners, and the community must be increasingly concerned with good health.

We know much more about good health than we are applying: our task is to put this knowledge to work.

*Practitioner attitudes: objective or subjective?*

Important in the attempt to establish a healthy working relationship with patients or clients is the practitioner's recognition of his own bias.

Practitioners apparently tend to project their subjective experience with aging persons onto their patients or clients. This was a striking finding in the "You Tell Us" seminars conducted in preparation for these volumes. For example, many participating practitioners referred to their own experiences in dealing with aging relatives.

Because the clinical literature deals so heavily with the aged in institutions or with severe problems of aging persons, the practitioner's attitudes

tend to be biased in a negative way. In the seminars, we asked: What percentage of persons over 65 do you think live in nursing homes, homes for the aged, or mental institutions? Responses varied. Some said 60 percent. Almost none said 4 to 6 percent, which is correct.

The statement that "most old people live in institutions" is wrong. So is "all old people are alike." Here are other misconceptions we found in talking to practitioners:

"Most aging persons are sick, friendless and without resources." This is not so, says Dr. Ethel Shanas, a sociologist who has made many intensive studies of older people. She finds that most of the elderly function well physically and mentally, look to themselves and their own resources first and only then to Government programs for help in living out their lives with self-respect.

"Most older adults are handicapped by chronic disease." The catch here is "handicapped." True, many elderly people have a chronic disease. But they do not regard it as a functional handicap unless it is quite severe. Older people, it seems, often have a more realistic concept of health than those serving them. They see health in terms of functioning, not in terms of clinical pathology. With progress in control of chronic disease, more people can be expected to continue to function longer in the years ahead.

"Most older people lose contact with their families." This view is not substantiated by recent studies, although some health workers believe that old people are generally "dumped" and forgotten. Dr. Shanas has found that older people with children, whether living alone or not, keep in physical proximity to at least one child and see him often. Most older people prefer to live apart from their children but close enough to be seen often.

"Most older people are not able to make their own decisions." People working with the elderly should take care to plan *with* rather than *for* them. Freedom of choice is important to the older adult. Practitioners who take the time may discover that the patient or client can make decisions, and that this participation can lead to better treatment results.

"Old age is second childhood." Studies have shown that intelligence, learning ability and other skills hold up remarkably well until a major breakdown in health occurs. Practitioners should guard against "infantilizing" their programs for the aging population. This can become a self-fulfilling strategy and indeed make old age into a second childhood.

*Common situations facing practitioners*

It is understandable that practitioners may tend to have misleading ideas about the aging population. Many deal with older adults at times of crisis when dependency needs are great. Practitioners generally do not see the elderly when they are well. Thus, they often fail to see the possibilities for growth and development that exist in older adults.

We have mentioned the preponderance of literature on aging that deals with the sick and institutionalized. The negative biases generated by this literature are confirmed by cultural attitudes that are unrealistic. For instance, the accent on youth and productivity and the trend toward early retirement and compulsory retirement have deprived many of the growing number of older adults of a meaningful role in society. Through their own attitudes, many practitioners reinforce the diminishing self-image of these older persons.

We have come to take for granted the three-generation family. Now we are seeing an increase in four-generation families, with two generations over age 60 or 65. These include 60- or 65-year-old children of parents who are in the 80's. In these situations, the pattern of dominance is often child-parent rather than parent-child. The 65-year-old may face divided loyalties to his parents and to his children. The success of a practitioner may depend on his understanding of the family dynamics in these situations.

## THE WORLD OF PRACTICE

There are very few factors of life which do not affect, in greater or lesser degree, the health of all people and certainly of the aged. By the same token, there are very few fields of personal and community service that do not address themselves, in one degree or another, to the aging population and its health.

The physician, obviously, is the primary practitioner concerned with the health of the aging person. He has the direct, immediate and continuing responsibility to keep the well individual well, to deal with disease when it strikes. He has at his disposal a vast and growing array of services and programs that he can utilize in the accomplishment of his health goals.

The personal physician also has as allies those traditionally associated with him in promoting and maintaining health and fighting disease. These include, among others, other specialist physicians, the psychiatrist, the clinical psychologist, the dentist, the nurse, the physical therapist, the occupational therapist, the speech therapist.

Another group of allies includes social workers, housing personnel, administrators and other personnel of congregate care facilities, planners, welfare workers, recreation workers, retirement counselors and many others. Their efforts and services assist the aging individual to adjust to the fact of aging, and thereby assist in the maintenance of health; they help the aging individual deal with the vicissitudes of aging, including illness, and thereby help reduce the consequences of those vicissitudes.

Still another circle of practitioners must be included among those whose skills and knowledge are at the service of the aging population. The minister, as his title implies, "ministers" to people. For the aging individual, the minister is not only a resource for his spiritual needs, but a resource for counseling and advice in dealing with family problems, and increasingly he is the focal point for referral to other resources in the community. The architect, whose planning and design will often determine whether the housing of the elderly deals with the realities of their needs and contributes to their health and happiness; the banker or accountant, whose advice helps conserve the financial resources of the aging individual; the pharmacist, the grocer, the policeman, the bus driver—all whose activities touch however slightly upon the lives of the aging population have a contribution to make to the sense of security, the physical safety, the morale, and by virtue of all of these, to the health of the aging population.

The interrelatedness of knowledge of aging is being reflected increasingly in the interrelatedness of practice. The "team" concept in health care is finding more and more tangible expression because it reflects the reality of the situation and the needs of all human beings, but particularly of the aged. The *rehabilitation* team is a dramatic example of how the knowledge and skills of many different disciplines are harnessed towards the single goal of restoring a disabled individual to maximum function. And with today's understanding of the wholeness of the individual, "maximum function" is measured as much in terms of social and psychological function as it is in terms of physical function.

Another example is the *home care* team, which integrates the skills of the physician with those of the homemaker, the dentist, the physical

therapist, the social worker, the visiting nurse, the occupational therapist, the "friendly visitor."

Other combinations are beginning to emerge. *Recreation centers* for the aged are becoming health centers as recreation workers, nurses, public health officers and physicians "team up" in programs of health education, screening for illness, and referral. *Safety programs* for older persons enlist the knowledge and services of traffic engineers, police officers, architects, social workers, community planners and, of course, the ubiquitous physician.

Several key elements are essential to the success of this teamwork, whether it be in dealing with an individual aging person or with the health needs of the total aging population of a community. A few of these are discussed here:

*Flexibility of settings*—The number of different types of settings in which aged persons are to be found is quite small. The greatest number of aged persons—some 70 percent—live in their own homes, and the rest of those who live in the community live in apartments, including public housing, or with adult children. Those who do not live "at home" are the 4 to 6 percent who live in nursing homes, chronic disease hospitals, homes for the aged, or mental institutions.

The patient's home has become an extension of the hospital and other kinds of care institutions as a place where the aged can receive care. There are relatively few problems of a health nature with which the health practitioners cannot deal in the home.

The flexibility of settings is equally apparent in the agencies and institutions that serve the *well* aged. Recreation centers, churches—wherever older persons congregate—can become centers of health education, counselling, referral and many other services which contribute to promoting and maintaining health.

Housing agencies, family and public welfare agencies all have services in relation to the aging population much broader than those assigned to them in years past.

Facilities and services with multiple objectives are beginning to emerge increasingly as the settings for team action.

*Transportability of services and skills*—The success of teamwork in meeting the needs of the aging population is due in large measure to far greater flexibility in the mobility of services and skills than we have ever known before. The physician's little black bag has long been the symbol of the transportability of his healing skills. The physical therapist today is highly mobile. He does not need the instruments and machines of the rehabilitation center to do much of his task—his knowledge and his hands are easily transportable. We no longer think of the nurse as working only in the hospital: we take for granted now her presence in the home and all the other settings we have described. Similarly the social worker. Similarly almost all the other health practitioners.

*Awareness of the other practitioner's job*—Because the problems of the aged are many and complex, especially their medical problems, many different kinds of practitioners are involved in their care. The speech therapist has to know what the physical therapist is doing and something about how he does it, if only to fit his own task more effectively into the total program. For example, the speech therapist is not likely to schedule a visit with a patient for the hour immediately following that patient's intensive—and possibly exhausting—session with the physical therapist.

Similarly, we need to know the other fellow's job in order to support him in his efforts. Thus, the nurse or the physical therapist or the social worker who knows just a little about what the speech therapist is trying to do with the patient will give the occasional reminder and the little extra push that may make the difference between halting and steady progress in rehabilitation of speech.

*Shortages of personnel*—The numbers of aging and the numbers of programs and facilities to serve them have grown far beyond the availability of personnel, skilled and unskilled, to meet the needs. For the forseeable future, health practitioners will be doing "just a little extra," job definitions will be examined and reexamined more and more. In the meantime, working in teams and knowing more about other fields of practice become increasingly important elements in health promotion and care.

*Summary*

The practitioner should use these principles:

1. He will understand the interrelatedness of the aged person and his environment.

2. He will look at the whole person — medically, psychologically, socially — and not just at symptoms.

3. He will establish goals: to restore the sick to health, to help the individual function at his best. These goals are not only needed for the aged individual; they are necessary to the practitioner who otherwise will feel frustrated and futile.

4. He will establish different goals for different individuals in different situations.

5. His basic goal will be treatment of specific diseases as well as health maintenance and promotion.

6. He will utilize the full range of the community's health and social services in an integrated approach. He will recognize that every health practitioner may have a contribution to make.

7. To attain optimal physical, mental, and social well-being, the individual must strive to improve his own health, practitioners must provide skill and guidance, and society must offer the settings for organized health activity.

## THE AGING POPULATION AND ITS NEEDS

Almost 1 in 10 Americans is 65 or older, about 20 million persons. Census experts predict increases. By 1975, there will be 22 million aged—more if breakthroughs occur in treatment or prevention of cancer and cardiovascular-renal diseases. By 2000, at least 30 million will be 65 or older.

These figures clearly foretell part of the need for comprehensive services to the aged. There is more. People are living more often into the oldest ages. This is not to say that the outermost limits of human lifespan are expanding; more likely it means that more people are approaching the limits as we have known them.

More than 7 million of today's 20 million aged are 75 or over. This 1-in-3 proportion will grow. By 1980, 9 million of the aged will be over 75.

We will have more old people and more "older" old people. Therefore, the increase in the need for care will be greater than the increase in numbers suggests. We know statistically that after age 45 individuals are likely to have multiple chronic conditions. Certainly to prevent disability, many conditions such as arthritis, rheumatism, heart disease, high blood pressure, diabetes, and visual and hearing impairments require continual medical care.

Chronic diseases are costly, and it is primarily the elderly who have chronic disease. We know statistically that the elderly use more physician

PROJECTION OF THE POPULATION OF THE UNITED STATES

| | *Population (in thousands)* | | | | |
|---|---|---|---|---|---|
| *Age* | *1960* | *1970* | *1975* | *1980* | *1985* |
| 45–64 . . . . . | 36,058 | 41,834 | 43,394 | 43,223 | 42,958 |
| 65–plus . . . . | 16,560 | 19,571 | 21,171 | 23,087 | 25,006 |
| All ages . . . . | 179,323 | 208,249 | 225,123 | 244,566 | 265,575 |
| | *Percent of change from April 1, 1960* | | | | |
| 45–64 . . . . . | — | 16.0 | 20.3 | 19.9 | 19.1 |
| 65–plus . . . . | — | 18.2 | 27.8 | 39.4 | 51.0 |
| All ages . . . . | — | 16.1 | 25.5 | 36.4 | 48.1 |

SOURCE: *U.S. Census Bureau, Population Estimates, Series P–25, No. 326, February 7, 1966.*

services, have more hospital admissions, and stay longer in hospitals than do younger persons. The elderly are prime users of nursing homes and other long-term care facilities. They use more prescribed drugs.

Higher utilization is expected because of Medicare and other programs. Medicare alone is a huge expenditure; the costs of care—$3.4 billion in the first full year of operation, and $5.3 billion the second year—are bound to rise appreciably as the population grows and makes regular use of the program. (In fiscal year 1967, 22.1 percent of all U.S. spending for health care was for the elderly. Combined public and private expenditures for medical care for the aged reached over $9 billion in fiscal year 1967.)

The shortage of health practitioners, acute now in various fields, is another major concern. It will be felt more keenly in the future until expanded training efforts take hold. Adding to the demands on national resources will be rising expectations by the public for health care. The legislation of the 1960's has made a start on developing services that persons now in their middle years and older will need and seek in the 1970's and later.

Demands for care already have become pressures for efficiency in the delivery of care. It is also recognized that knowledge productive of better results in keeping people well or restoring them to health becomes a multiplier of manpower needs, which in turn may impose further strain on health service expenditures. But this knowledge will improve life for the elderly.

*The relevance of research to practice*

There is still a great deal that we need to know about the biological, behavioral and social manifestations of aging. For example, it is still a matter of speculation whether or not there exists a biological process fundamental to the manifestations of aging. If a process or group of processes of aging can be shown to exist, our understanding of multiple chronic conditions as a characteristic of the aged would be profoundly improved.

Aging has been thought of as producing vulnerability to stresses. These may be disease, accident, or psychosocial events, such as widowhood, economic deprivation, and loss of status. It may be that our oldest people are extraordinary survivors of stress because of genetic endowment, acquired abilities, or luck.

Aging may have a basic relationship to chronic disease, which is a growing challenge to research and therapy. In the United States at least, the potentials of antimicrobial therapy apparently have been largely realized. Between 1910 and 1940, the death rate from influenza and pneumonia was reduced by 55 percent; it was halved again after 1940. However, since 1940 the death rates from heart disease and cancer have each increased by one-fourth. The U.S. rate for heart disease is one of the highest in the world. Among males in the productive ages of 40 to 54, mortality rates are substantially higher in this country than in other industrial nations and almost twice the rate in Sweden.

Unless some dramatic breakthrough occurs in the basic understanding and therapy of chronic diseases, we can expect only small declines in the crude death rate. There is nothing now at hand for chronic disease like the defenses we have against infectious diseases, such as antibiotics and immunizations.

The aging of our population appears to be outrunning our basic and therapeutic knowledge. There seems to be something about the aging system that increases its vulnerability to disease and accident. Progress in extending life expectancy at age 45 and in reducing death rates has been limited as the following tables show:

| LIFE EXPECTANCY | | | | |
|---|---|---|---|---|
| | *1939–41** | *1949–51* | *1959–61* | *1966* |
| AT BIRTH . . . . | 63.6 | 68.1 | 69.9 | 70.1 |
| White. . . . | 64.9 | 69.0 | 70.7 | 71.0 |
| Non-white . | 53.9 | 60.7 | 63.9 | 64.0 |
| AT AGE 45. . . . | 26.9 | 28.5 | 29.5 | 29.7 |
| White . . . | 27.3 | 28.9 | 29.8 | 30.0 |
| Non-white . | 22.8 | 24.8 | 26.5 | 26.4 |

**Figures for non-white groups include only Negroes.*

SOURCE: *National Center for Health Statistics, U.S. Public Health Service.*

| DEATH RATES<br>*Deaths per 1000 population* | | | | |
|---|---|---|---|---|
| | *1940* | *1950* | *1960* | *1966* |
| All causes . . . | 10.8 | 9.6 | 9.5 | 9.5 |
| Cardiovascular . . . | 4.1 | 4.9 | 5.2 | 5.2 |
| Cancer . . . | 1.2 | 1.4 | 1.5 | 1.6 |
| Influenza & Pneumonia | 0.7 | 0.3 | 0.4 | 0.3 |
| Accidents . . | 0.7 | 0.6 | 0.5 | 0.6 |
| All other . . | 4.1 | 2.4 | 1.9 | 1.9 |

SOURCE: *National Center for Health Statistics, U.S. Public Health Service.*

An overview of current gerontological research will be presented in Volume II, which treats in some detail the biological, psychological and sociological aspects of aging. Certainly new knowledge is needed, and it is being developed and made available as the scope and depth of gerontological research is extended. Nevertheless, there is already enough knowledge available to make the lives of the aging healthier and happier. It is our hope that these volumes will give practitioners easy access to the useful knowledge of aging that exists now.

## PROFILE ON AGING

So many changes come with age to so many people that the changes can hardly be termed abnormalities. This chapter explores such changes.

Yet, it is hard to say what proportion of these changes can be attributed to intrinsic aging and what part to pathology. Disease and other environmental agents undoubtedly have effects indistinguishable from intrinsic aging. And the relationship of intrinsic aging to clinical disease is generally considered to be indirect: the biological degenerations of aging may confer vulnerability to disease. Thus, the etiology of pneumonia is bacterial or viral, but the increased prevalence of pneumonia in the elderly population suggests increased susceptibility. This susceptibility may reflect age-associated losses in the capacities that make for resistance to infection, in the efficacy of immune mechanisms, and in respiratory function.

Determining which factor is primary and which contributing or secondary is rarely possible. Most age-related diseases are degenerative, lacking a distinct dominant cause. Most common in old people are sequelae of arteriosclerosis, involving a variety of organ systems.

It would be useful for the practitioner to have a physical profile of aging that would give a range of normal function around mean values by age. Deviations from the normal range could be detected early and action taken. Unfortunately, information of this sort is rare.

What is available suggests that health of the elderly should not be rated according to mean values for the young. If mean values of the young were taken as general norms of health, most of the elderly population would have to be considered ill. Diabetes is an example. Mean blood glucose levels increase approximately 10 mgm. percent per decade. Thus, if the mean blood glucose values considered presumptive of diabetes in young adults are applied to the elderly, a significant number of these would be considered to be diabetic. The true significance of this phenomenon is yet not clear, since many older persons with increased mean blood glucose levels appear to maintain the same or similar glucose tolerance test characteristics as those they demonstrated at younger age periods.

The hard question to be answered by further research is this: Are blood sugar values in the elderly truly predictive of such ultimate concomitants of diabetes as stroke and coronary artery disease? It is possible that careful detailed clinical studies correlated with post mortem examinations may determine whether there are significant differences between hyperglycemics and normoglycemics. Several studies suggest that elevated blood glucose levels, even though subclinical, do warrant placing the mild hyperglycemic individuals in a higher risk category for circulatory diseases.

For the moment, it appears that aging brings quantitative rather than qualitative changes in performance. It is evident that the term "well" applied to a 40-year-old person has a different meaning from "well" applied to an 80-year-old person.

Some processes show little or no significant change with age; others change during the fifth or sixth decade and stabilize. Still others remain essentially unchanged until relatively late in life and then slowly decline. Finally, some processes begin to decline during the third and

fourth decades and the declines slowly gather speed. Certain functions decline early in life but the decline is obvious only under heavy stress; swimmers, for instance, are "old" by the twenties.

Certain functions show little or no change with age when measured at rest. When stressed, however, distinct decrements appear. For example, fasting blood glucose values often show no significant change with age; but values obtained in the glucose tolerance test, which involves a stress or challenge to the body's stabilizing (homeostatic) mechanisms, do show functional declines. Similarly, body temperature may show no change with age until the subject is exposed to extreme heat or cold.

It must be recognized that there is difficulty in distinguishing between biological aging and pathological aging, and between pathological aging and disease, particularly vascular impairment which has organismic repercussions.

While important problems of definition remain to be settled, we do have a large body of descriptive information on changes that come with age. The details may help the practitioner construct a realistic picture of aging.

### ● Skin and subcutaneous tissues

The obvious and outward signs of these changes represent the image an individual presents in his social relationships and also are a factor in his concept of self. Gray hair, wrinkles, warts and other manifestations, therefore, represent clearly a deteriorating or less attractive image for the individual himself and for others. Emotionally, they are one more stress or strain which the ego must grapple with in adapting to the aging process.

#### • CHANGES IN APPEARANCE

The stereotyped picture of an aged person is that he is small and lean; however, the range of variation in external appearance is probably as great as for younger groups. The changes that occur with aging in the skin and subcutaneous tissues are largely responsible for the alterations in external appearance:

a. *General skin appearance*—The skin becomes progressively more lax, inelastic, dry and wrinkled, and also becomes thinner (atrophic). Focal pigmentary discolorations (yellow and brown) occur.

b. *Ecchymoses* (Minute hemorrhages resulting in the familiar "black and blue" spots and markings)—Because of an increased fragility of the dermal and subcutaneous vessels, ecchymoses result from relatively trivial trauma.

c. *Angiomas and keratoses* (types of warts)—Other frequent skin changes are senile angiomas and warts on the face, scalp and trunk.

d. *Fissures*—Fissures often develop about the mouth.

e. *Hair*—The graying and ultimate whitening of the hair is an almost universal change. Aside from inherited baldness, there is a progressive loss of hair from the frontal and vertical areas of the scalp in men, and a general thinning of the hair in women.

f. *Sweating*—Old people also sweat less than younger ones.

#### • STRUCTURAL CHANGES

The structural changes responsible for the foregoing consist of an atrophy of the epidermal layer except for the focal areas of hyperkeratosis (excessive deposit of callus). The latter can be considered premalignant lesions in the sense that malignant tumors, most often basal cell carcinomas, develop at such sites. The dermis undergoes basophilic degeneration which involves degenerative changes in both collagen and elastic fibers. The skin adnexal structures, i.e., the sweat and sebaceous glands and the hair follicles, undergo atrophy, and there is also atrophy of the subcutaneous tissues.

It is not difficult, therefore, to match these structural changes with changes in the appearance of the skin:

a. The fissuring is due to atrophy of the epidermal layer.

b. The wrinkling and loss of resiliency can be related to the changes in collagen and elastic fiber, and the dryness to the loss of sweat glands.

c. The secretion of the sebaceous glands contains a factor which protects against

hyperkeratotic changes, and loss of this substance permits the development of these tumors.

d. Atrophy of the hair follicles accounts for the balding.

e. The loss of subcutaneous tissue is particularly important since this layer affords both an insulating layer and a cushioning against trauma. The former may be responsible, in part, for the inability of old people to regulate body temperature, and the latter to the development of decubitus ulcers (skin sores) at points of pressure.

• ENVIRONMENTAL FACTORS VERSUS INTRINSIC AGING EFFECTS

It should be emphasized that many of these changes in the skin are most marked in the exposed portions of the skin because prolonged exposure to actinic rays can result in changes similar in many ways to those seen in aging. This, therefore, constitutes an example of the difficulty often encountered in distinguishing between intrinsic aging effects and environmental factors.

## ● The skeletal system

The stooped posture, stiffened joints and porous bone structure represent not only a less attractive physical image but also a limitation in mobility and independent activities of daily living, both at home and in the community.

• CHANGES IN APPEARANCE AND MOVEMENTS

The physical stereotype of the aged person is one of lean and bent appearance, and slow movements. Some of the changes that occur include the following:

a. *Height*—Old people are considered to have suffered some reduction in height.

b. *Posture*—The typical posture is usually described as consisting of partially bent hips and knees, stooping back and flexed neck.

c. *Muscle power*—Loss of muscle power is usually evident. Rapid voluntary movements become less easy to perform, but this is probably due to a combination of changes involving both muscle and the nervous system. Inactivity accelerates this process.

• RELATION TO OTHER ORGAN SYSTEMS AND BODY ACTIVITIES

These changes in muscle have an important influence on a number of other organ systems and on many activities:

a. *Daily tasks*—They create difficulties in carrying out ordinary daily tasks.

b. *Respiratory system*—They impair the efficiency of the respiratory system because of impairment of the muscles of respiration.

c. *Excretory functions*—Since all voluntary muscles suffer equally, involvement of the muscles of the abdomen and pelvis creates problems in defacation and urination.

d. *Energy stores*—Muscle also provides a major site for glycogen storage, and loss of glycogen stores leads to a loss of reserve sugar from which the energy required for emergency activity is derived.

• STRUCTURAL CHANGES

a. *Muscle*—The structural changes seen in muscle consist of thinning of the individual fibers, a loss of their cross striations so that they present a homogeneous (hyaline) appearance, and ultimately a disappearance of muscle fibers and their replacement by fibrous tissue (nonfunctional scar tissue) which does not have the ability to expand and contract at will.

b. *Posture*—The changes in posture noted above result from structural changes in ligaments, joints and bones. Ligaments and joints become stiffened.

1) The *ligaments calcify* progressively with advancing age and ultimately ossify; this mineralization involves primarily the elastic fibers.

2) The *stiffening of the joints* results from an erosion of the cartilaginous joint surfaces and their ossification, as well as from degenerative changes which occur in the soft tissues which line the joint cavities (synovium). Many investigators consider this as a manifestation of disease (osteoarthritis) despite the fact that it is almost universally present in some degree in old people.

3) The calcification and ossification of the *ligaments of the vertebrae* account for the so-called "lipping" of the vertebrae.

4) The *fibrocartilaginous discs* which provide a cushion between vertebrae undergo atrophic changes and become thinner, thus accounting for changes in the curvature of the spine.

5) Surprisingly, however, all of these changes often have little effect on *motion.*

6) On the other hand, comparable changes in rib cartilages and in the ligaments and joints which join the rib cage to the sternum and vertebrae may seriously impair movement of the rib cage and thereby seriously affect *respiration.*

7) With advancing age the *bones* become porous and lighter, losing much of their elasticity. This process is called osteoporosis, and is a definitive clinical disease of the elderly. As the bone cortex becomes thinner, a compensatory reaction occurs on the outer layer (periosteum), consisting of deposits of new bone. Some bones change shape. Thus the angle between the neck of the femur and the shaft changes from an obtuse to almost a right angle. Such changes alter structural characteristics designed to withstand stresses and predispose to fractures from trauma which they would be ordinarily capable of withstanding. Changes in the bony structure of the vertebrae as well as those in intervertebral discs and ligaments all combine to produce the kyphoscoliosis (hunched back) of the elderly, but there is often a component of poor posture which contributes to the stooped appearance.

**● Nervous system**

In addition to the skin changes, loss of bulk, postural alteration and appearance of weakness which characterize old people, the external appearance also includes tremors, alterations in facial expression and mental reactions. These involve primarily the nervous system. Because of retarded reflexes and slower adjustments to stimuli of all kinds, considerable adaptation is necessary on the part of the older person in his daily habits and ways of doing things, to allow for the time lag.

• FUNCTIONAL CHANGES

Deficits referrable to the nervous system include the loss of some tendon reflexes, and loss of efficiency of sensory organs as exemplified by a raised threshold for taste and smell.

a. *Tactile discrimination* and the appreciation of vibrations are diminished.

b. Least affected appears to be the *appreciation of pain*, although there is some indication that the pain threshold is raised in many aged persons.

c. *Reflexes* generally and *adjustments to stimuli* become slower and less efficient.

d. The *recovery of balance* from changes in position is retarded.

e. *Susceptibility to shock* is increased because of loss of efficiency of neural control of circulation.

f. There seems to be a decrement in speed and accuracy of a variety of *cognitive and psychomotor functions* which is roughly proportional to the extent of brain damage. There is also a decline in some intellectual abilities, at least in the very old. Impairment in *short-term memory* has been reported, but *long-term memory* seems to be preserved well into old age. On the other hand, there is an increase in *factual knowledge* with age (experience), and in its coordination and ordering, and this may offset some of the other mental decrements.

• PERSONALITY CHANGES

Many behavioral problems observed in the elderly appear to be related to changes in the cerebrovascular system (blood supply to the brain), as well as changes in the nervous system. Many symptoms resembling those of mental illness are perceived and present severe management problems for institutions or families caring for these patients. These changes are most distressing to the adult children of these patients who find the personality differences frightening and disturbing, and who often need counseling and help with their feelings in these areas.

a. Old people have been described as developing a *narrowing of interest* and a *failure to accept new ideas.*

b. They are often *melancholy* and *pessimistic.*

c. They are also believed to have a *loss of intensity of emotional response* and a *loss of adaptability.*

d. Old people also exhibit an *abnormal possessiveness.*

e. Finally, in advanced senility, there is *mental confusion* with intervening lucid periods.

Some observers believe that many of these characteristics represent only an exaggeration of earlier traits.

• STRUCTURAL CHANGES

There are both gross and microscopic changes which occur with advancing age and may, to a considerable degree, be associated with the foregoing manifestations. However, there is a considerable difference of opinion as to whether these structural changes represent intrinsic aging effects or are the consequences of vascular impairment.

a. With advancing age there is a *progressive atrophy of the convolutions (gyri) of the brain surface and consequently widening and deepening of the spaces (sulci) between convolutions.*

b. There is some loss of bulk of brain substances and some *dilatation of the canals (ventricles)* which contain cerebrospinal fluid.

c. Microscopically, a progressive *loss of brain cells (neurones)* can be detected and the remaining neurones acquire a brown pigment (lipofuscin). *Corpora amylacea*, small sand-like bodies, progressively increase in number within the brain substance.

d. Some of these changes are believed to be intensified in *senile dementia*, and are certainly intensified, at least in focal areas, following *occlusion of cerebral vessels.* Moreover, it is not unusual to encounter old people who exhibit very few of the behavioral changes noted above until they have suffered one or more strokes; following this there is a sudden and rapid deterioration in the direction of senile dementia.

**● The special senses**

Relatively less attention has been paid to age-related impairment of the special senses, since even total loss of function of one or more of these is still compatible with life. Nevertheless, it is self-evident that a loss of some of these functions can have profound personality effects and create serious problems in coping with the environment.

• VISION

Most people retain good vision throughout their advanced years. However, they usually have certain problems with overall visual efficiency.

*Presbyopia* (farsightedness) is a condition of decreased near vision resulting from progressive rigidity of the lens and reduced ability to accommodate. It generally manifests itself clinically at about age 40. It is correctable with spectacles.

*Senile cataract* is usually present to some degree in all older people, but it is possible to live well beyond 80 without any significant handicap from a cataract. However, increasing opacity of the lens may gradually reduce visual efficiency as the cataract advances. The course and rapidity of development is highly variable. There is no need for inordinate delay in removing the opacifying lens. This can be done whenever the visual needs of the patient require.

*Glaucoma* is usually associated with an increase in intra-ocular pressure, and occurs more commonly in older people. Persistently increased intraocular pressure can result in the asymptomatic destruction of optic nerve tissue leading to a gradual loss of visual fields, and ultimately to blindness. Digital palpation is useless in the determination of intra-ocular pressure and the diagnosis of glaucoma. All physicians providing total health care should use a tonometer test to measure intraocular pressure in people over age 35. This should be done at regular intervals as part of routine health care to detect glaucoma at a treatable stage before visual loss.

It is recommended that individuals in the older age range have a complete eye examination annually with special emphasis given to the common conditions described above.

Changes in vision have a tendency to be limiting as to activities, both active and passive. Many vision problems prevent enjoyment of travel, of shopping, of reading, of television and other forms of diversion, and may be viewed as

the most difficult physical handicap to which an older person must adapt.

• HEARING

*Presbycusis* (hearing loss with age) generally begins by about the age of 30, but ordinarily does not cause difficulty until the middle years or later. The loss of hearing begins in the higher frequencies and progresses to the lower frequencies. The condition can result from a combination of many factors, such as aging of the brain and the total auditory system, effects of disease, trauma, noise, etc.

Decreased hearing sensitivity in elderly persons often causes limitations of social relationships and enjoyment of activities such as church attendance, radio, concerts, television, and social visiting. Social participation is particularly important to the mental health of the elderly. In the light of this fact, a hearing disability can have serious implications when it leads to isolation which, in turn, may result in withdrawal, frustration, and concomitant personality changes.

• SPEECH

Changes in pronunciation, voice, and language usage are quite common in the aged. *Aphasia* (or *dysphasia*) are less common and refer to various impairments in the ability to use or understand words as a result of brain lesions. Many factors may be responsible for changes in pronunciation and vocal usage. These include lesions involving motor nerves controlling muscles used in respiration and articulation, lessened resilience of the tissues and cartilages used to produce voice and a lessening of finer muscular control in the oral structures used in speech.

• SMELL AND TASTE

*Progressive loss* of the sense of smell is quite common, also a loss of the sense of taste as the taste buds diminish in number. Such changes may be partly responsible for loss of appetite and other pleasurable sensations. The loss of sense of smell can also create a hazardous situation since it may involve inability to detect odors of dangerous gases.

• TACTILE

With advancing age there is a *progressive loss* of ability to experience heat, cold, and touch sensations. *Vibration sense of the extremities* is also often lost, although it may remain even in some nonagenerians.

**• Cardiovascular system**

As already pointed out, one large problem in assessing aging phenomena in the human and other vertebrates involves differentiation between degenerative phenomena within the specific organ which are due to intrinsic causes and those due to extrinsic causes. An example of degenerative changes due to intrinsic causes would be a heart affected by diseases of the coronary arteries, valves or primary diseases of the myocardium; extrinsic causes may be hypertension, arteriovenous fistula, chronic anemias, generalized arteriosclerosis or chronic pulmonary disease. In addition, other intrinsic causes may be due to so called "mechanical wear and tear" phenomena.

• FUNCTIONAL CHANGES

With aging there is a *decline in cardiac output* at rest. Moreover, the heart becomes less capable of responding to extra work which in young persons is characterized by an increase in rate and stroke volume. The heart does not enlarge with age unless there are underlying intrinsic and/or extrinsic causes such as mentioned above. In the absence of these conditions the heart is usually normal or small in size in old people. There is a progressive *increase in peripheral resistance* to the flow of blood, and also a tendency for *increased systolic blood pressure.*

• STRUCTURAL CHANGES

With advancing age there is some *increase in the interstitial fibrous tissue*, but the atrophy seen in voluntary muscle fibers does not occur here. The *muscle cells, however, progressively accumulate brown pigment* (lipofuscin) in a manner similar to nerve cells. Current research also indicates that *senile amyloidosis* (excessive deposit of a starch-like material) of the heart is quite common. These changes appear to occur even in the absence of significant narrowing of the coronary trunk arteries. These alterations are probably responsible for the diminishing cardiac output.

The *arteries elongate* with advancing age, become *tortuous* and *calcify.* In addition

there is *fibrosis of the lumen* (inner channel) which becomes narrower. Such changes cause the pulse wave to be propagated more rapidly in older people, and may also be responsible for the trend toward higher systolic blood pressures.

*Basement (supporting) membrane thickening* advances progressively with age in vessels of all sizes, even down to capillaries. In small vessels the muscle fibers hyalinize and perivascular fibrous tissue increases. These changes bring about an impairment of diffusion of nutrients into the tissues as well as of the removal of waste substances. Many aging changes may occur secondary to these vascular alterations. There also is evidence that thickening of basement membranes occurs in young children born of parents both of whom are diabetic.

### ● Respiratory system

Changes within the respiratory system may lead to a limiting of mobility and activities of all kinds—shortness of breath and other breathing difficulties produce varying degrees of fear and anxiety to older persons similar to the apprehensions which accompany heart conditions.

There are three components of this system which may show age-related impairment: *ventilation* (breathing), *diffusion* (exchange of oxygen and carbon dioxide between lungs and blood), and *pulmonary circulation.*

#### • FUNCTIONAL CHANGES

Extensive comparisons have been made between individuals in their twenties and those in their eighties. Total lung capacity declines, while there is an *increase in residual volume.* There is a *reduction in vital capacity* and its subdivisions. Maximum voluntary ventilation and other tests that require subject effort decline considerably with age because of an age-related decrease in maximum pulmonary ventilation and maximum oxygen consumption.

#### • STRUCTURAL CHANGES

*Age-related factors which interfere with ventilation are weakness of the muscles of respiration, marked obesity and skeletal abnormalities of the rib cage.* As already pointed out, these are basically representative of the changes which take place throughout the skeletal system. There is also *diminished resiliency of the lungs*, probably due to changes in the elastic fibers. Reduction in diffusing capacity is probably due to a reduction in alveolar capillaries plus mild maldistribution of inspired gas.

*Pulmonary arteriosclerosis* occurs at a much slower rate than systematic arteriosclerosis, primarily because of the lower operating pressures in the pulmonary circulation. Nevertheless, all of the changes in the arteries, arterioles and capillaries noted under cardiovascular systems ultimately also occur here.

#### • EMPHYSEMA

Differences between senile and other forms of emphysema are suggested by various observers. Old people not uncommonly experience *dyspnea* (shortness of breath) without manifest evidence of obstruction to exhalation common in other forms of emphysema. Pulmonary function in older persons should be followed periodically to promptly identify changes which may be due to developing clinical disease.

### ● Gastrointestinal tract

Food and enjoyment of it is a primary satisfaction available to many older persons, so that digestive difficulties, modified diets and intestinal upsets are often major problems to the elderly, representing one more area of deprivation for them. There is great preoccupation with food intake and excretion. Food fads are not uncommon, and these are often difficult to resolve by those supplying food regularly to the aged. Bowel incontinence represents a major nursing management problem to those caring for the aged.

#### • FUNCTIONAL CHANGES

Complaints referrable to the gastrointestinal tract are common among aged persons. Loss of the sense of smell and its effect on appetite has already been mentioned, as has loss of taste buds in the oral cavity. The latter may be further impaired by the presence of glossitis. The intake of food may be further reduced because of poor teeth and ill-fitting dentures.

The stomach shows a reduction in *gastric motility*, but this is usually not sufficient to delay gastric emptying. There is, however, an increased tendency towards *achlorohydria* (loss of digestive acid) and a *reduction in gastric volume.*

There is *diminished peristalsis* throughout the gastrointestinal tract due to the generalized weakening of muscle activity, which also involves the smooth muscle of this system. This may be responsible for *constipation* which is common in old people. Other factors which contribute to constipation are the generalized dehydration, which has its effect on the water content of the stool, and changes in pH of the feces. There is a rise in fecal pH with age which results in a killing off of the lactobacilli.

Many old people have *hemorrhoids* which further complicate processes of elimination, and bleeding from these hemorrhoids may be responsible, in part, for the anemia which is often encountered in the aged. Some investigators have suggested that anemia in the aged may be due to impaired iron absorption. While there is some evidence supporting such a concept, the serum iron and saturation of iron-binding protein are within the same range as for younger individuals.

There is ordinarily no impairment of *liver and pancreatic function* in the healthy aged. The usual functional tests employed to evaluate the competency of these organs remain normal. There is also, generally, no evidence of impaired function of the gall bladder or bile ducts, although the frequency of calculi (stones) increases with advancing age.

• STRUCTURAL CHANGES

There is atrophy of the mucosal lining of all segments of the gastrointestinal tract with advancing age. There is *thickening of the basement membrane and submucosal connective tissue* which probably accounts for impairment of absorption. *Age-related vascular changes* already described occur also in this system and further contribute to impaired absorption. It has been observed in liver biopsies obtained from aged persons that many of them show *abnormalities suggestive of a nonspecific hepatitis*, even though they show no manifestations of clinical disease of the liver or gastrointestinal tract. There is some increase in fibrosis (scarring) in the pancreas.

### ● Urinary tract

Urinary incontinence, also a major nursing management problem in institutions and hospitals for the elderly, brings a feeling of shame to the patient and is difficult for family and friends to accept and understand. It has been demonstrated by several institutions for the aged that retraining for continence can be successful, with a great improvement of morale among the patients whose retraining was successful.

• FUNCTIONAL CHANGES

Probably the best quantitative data on aging changes are those available for renal function. The *filtration rate* in the kidney of persons in their eighties is about 50 percent of that of individuals in their twenties; *renal blood flow* is also about 50 percent of that of the young group. *Tubular function* is comparably diminished.

*Polyuria* (excessive urination) and *nocturia* (night-time urination) are common among the aged. In the male this is most often due to *prostatic enlargement*, which occurs in about 75 percent of males over age 55. This is often accompanied by *infections of the bladder* due to urinary stasis. In the female *infections of the urethra with extension into the bladder* are common and usually account for these symptoms.

• STRUCTURAL CHANGES

The structural changes in the kidneys which probably account for the alterations in renal function consist of *hyalinization (obsolescence) of glomeruli (kidney filters)*, *interstitial fibrosis* with some loss of tubules in the cortex, a peculiar soft hyaline which compresses and produces *atrophy of collecting tubules*, and vascular aging changes already noted. Contributing to this decrement in renal function are the age-related diminution in cardiac output, dehydration and anemia.

### ● Reproductive organs

• IN THE FEMALE

Undoubtedly the most consistent aging phenomenon is *menopause*, although even here there is a considerable variation in the age of onset. There are many *behavioral problems* associated with this event which will not be detailed here; many of them are a matter of common

knowledge. In the female there is, however, a considerable period during which low-grade estrogenic (female sex hormone) activity continues; this appears to be due to the take-over of secretion of estrogenic substances by the adrenal glands. Gonadotropic (pituitary) activity continues at a high level for some years following the onset of menopause. Ultimately, however, there is atrophy of all of the genitals.

• IN THE MALE

In the male the menopause occurs *considerably later in life* and is accompanied by a cessation of spermatogenesis, with less marked atrophy of the genitalia.

### ● The endocrine system

• FUNCTIONAL CHANGES

There have been many attempts to relate endocrine deficits to other aging changes. This derives primarily from the association of gonadal deficits with menopause and with the observation that patients with pituitary cachexia (severe weight loss) have certain superficial changes resembling aging. However, the actual demonstration of endocrine deficits has not met expectations. *No significant pituitary deficits* have been demonstrated and, in fact, certain hormones such as the gonadotrophins actually are secreted in increased amounts for a period of time following the menopause. Despite a decrease in oxygen consumption with advancing age, it would appear that there is no perceptible *thyroid deficit*. There is, however, *a fall in the secretion of adrenal 17 ketosteroids, but not of other adrenal hormones*. There is also a *deficit in anabolic steroids*, particularly those secreted by the gonads, which are important in that they are probably responsible for the loss of muscle protein.

Two general comments should, however, be made. There is a wide gap in our knowledge of age changes in the peripheral utilization of hormones, and the long looked-for deficits may exist here. Moreover, certain endocrine functions appear normal when patients are tested in a resting state, but abnormalities can be detected when they are subjected to stress. The glucose tolerance test as a mechanism for determining deficits in insulin secretion is a case in point. The fasting blood glucose level may not change significantly with age, but, if a glucose meal is given, there is a delayed return of blood glucose to a normal level.

• STRUCTURAL CHANGES

Nevertheless, structural changes occur in the endocrine glands which indicate there may be a central endocrine deficit.

### ● Hemopoietic system

• BONE MARROW

There is little information available on aging changes in bone marrow. There is some evidence of a diminution of functional and reserve capacity which becomes evident only under conditions of stress. Thus, there is a diminished leucocytic response to infection and a retardation of recovery from anemia due to hemorrhage.

• LYMPHOID SYSTEM

Similarly, responses of the lymphoid system, including the spleen, appear to diminish with age; there is a reduction in volume of lymphoid tissues and the response to external antigens is diminished. Thus, for example, the regional lymphadenopathy (enlargement of lymph nodes) associated with infections of the skin is often absent in old people.

• BLOOD VOLUME

Some reports indicate that blood volume diminishes with age. This may be due to indirect effects since blood volume is related to height, weight, surface area, muscle mass, protein content and other variables, some of which diminish with age.

• BLOOD CHEMISTRY

Anemia is not a characteristic of aging; the hemoglobin level is normal in healthy old people. However, nutritional state and dehydration may affect the level of hemoglobin. The total and differential white cell counts also do not change significantly with advancing age. Serum proteins do change with age. There is a diminution in the proportion of albumin and a proportionate rise in globulin, primarily the beta globulins; these changes are most impressive in some of the unwell elderly.

### ● Nutrition and Metabolism

The social aspects of eating are lacking for many elderly who live and eat alone. Lacking

motivation for adequate meal planning and preparation, these aged fall into a vicious circle of poor nutritional intake to lowered energy to further poor food intake. Various home-delivered-meals programs have observed an upsurge in both physical and psychic energy in aged whose nutritional intake has improved through appetizing and balanced meals delivered to them through these programs. Diabetes, an illness of metabolic imbalance, is often most difficult for the elderly to manage, in view of strong preferences for sugar and starchy foods which are quick and easy to prepare and to consume.

### • NUTRITIONAL DEFICIENCIES

Many of the changes seen in senescence resemble nutritional deficiencies. The capillary fragility responsible for ecchymoses, even following trivial trauma, suggests Vitamin C and Vitamin K deficiencies. The hyperkeratotic changes in the skin resemble those seen in Vitamin A deficiency and the fissuring about the mouth, the glossitis, the angular stomatitis suggest a deficiency in various Vitamin B components. Other changes suggesting nutritional deficiency are the loss of lean body mass, water depletion, and sometimes even fat depletion. Obesity in some aged persons may actually mask a protein loss. The process of demineralization of bone suggests a deficiency in mineral intake. Regarding the water content changes with aging, it is noteworthy that intracellular water falls by about 15 percent between age 40 and age 80.

### • INDIRECT FACTORS

Indirect factors also point to a nutritional deficiency. The usual changes in eating habits of old people can be listed as follows:

a. They have a reduced water intake as a rule.

b. Characteristically, old people develop a preference for sugars.

c. The motivation for preparing and eating an adequate diet is often lost along with other motivations.

d. The decreased appeal of food may be related to a loss of taste buds and reduced sense of smell, as already noted. The loss of teeth or ill-fitting dentures may also be a factor.

e. There is a reduction in the quantity of digestive enzymes and gastric acidity, which may impair absorption.

On the other hand, as has been noted, the basal metabolic rate decreases with age, indicating that the nutritional requirements of the aged are also reduced.

### • BLOOD LEVELS

A common method of assessing the normalcy of a metabolic process is the measurement of blood levels of the biochemical components of the process. It should be pointed out, however, that such measurements have only limited value since changes in the blood represent the combination of the level of synthesis and discharge into the blood stream, the uptake by the tissues utilizing the particular component, and the efficiency of the excretory mechanism. Suffice it to state that some of these measures rise with age, others fall, and still others remain constant.

### • RATIO OF ORGAN-BODY WEIGHT

Similarly varying patterns of change in relation to age occur in respect to the ratio of organ weight to body weight; this ratio can also be considered as dependent on changes in nutrition and metabolism. This ratio for such organs as the spleen and liver show a rise to a peak during middle age, followed by a decline; a similar curve obtains for dilatation of the large arterial trunks. The ratio for the heart reaches a peak at about age 40 and remains constant thereafter. The ratio for kidney, brain, pancreas and testis remains essentially constant after adult growth has been attained, and for lung and prostate it increases throughout the life span. For still other organs, such as the thyroid and some other endocrine glands, it diminishes progressively after adult growth has been reached.

### • TEMPERATURE MAINTENANCE

Another body function, temperature maintenance, can also be considered to reflect alterations in nutrition and metabolism, proper nutrition being essential for maintaining the insulating qualities of the subcutaneous tissue, and metabolism for providing energy for the production of heat. It has been repeatedly observed

that adjustments to adverse environmental temperatures is less rapid and complete as persons become older. It has been estimated that at least 10,000 old people die every winter in Britain from hypothermia. The rectal temperature can fall as low as 70–90° F, and mortality from hypothermia in old people is about 85 percent. This constitutes a real danger to the aged living alone without sufficient food and heating facilities.

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## PRINCIPLES OF MANAGEMENT

An English observer said it:

"Pediatricians are the only practicing doctors who do not include old people among their patients. In every other branch of medicine, old people are there in increasing numbers."

The internist or family doctor is mainly responsible for their care in the United States. This chapter is written with them in mind, but other practitioners—such as nurses, social workers, dentists, therapists, nutritionists, podiatrists, and psychologists—are invited to come along on this survey of principles of management.

Some of the background for this chapter has appeared earlier. Chapter I pointed out that the challenge to the physician and other practitioners is more than medical. In other words, medical treatment is not enough. Physical, psychological and social factors must be considered in caring for the elderly patient. The problems of aging are multiple rather than single. In short:

Treat the person, not the symptom.

Treat him with purpose and with hope.

Tailor the treatment to the individual's strengths and weaknesses; don't expect too much, but don't expect too little.

Rely on an integrated team approach using the full range of community services.

Remember that the successful treatment of disease is essentially a tactical achievement, no matter how great; the successful maintenance of health is the basic strategy.

## I. Disease and the Aging Body

*The aging body has the capacity to recover well from disease*

It is popularly assumed that old people recover slowly from illness. Those who hold this notion cite as evidence the longer average stay of aged persons in hospitals. But many factors other than the patient's powers of recovery may prolong the hospital stay of an aged patient—an unfavorable home situation, mental aberration, or the staff's lack of confidence in the patient's potential for recovery.

The fact is that an older person can recover from an acute illness almost as rapidly as a younger person, assuming he is otherwise in good health and is normally motivated. Given a good blood supply and the proper state of nutrition, the older patient's tissues will heal well.

*Aging can modify the signs of disease*

The way the body reacts to disease is often modified by age. Temperature in the aged, for example, is by no means a reliable indicator of those illnesses characterized by high fever; many aged persons show very slight rises in temperature in such illnesses. Small signs become very important: small increases in respiratory rate, a sudden rise in pulse rate, changes in facial appearance.

In general, the aged manifest fewer signs than do younger persons. The physician, therefore, must be all the more diligent in discovering and properly interpreting such signs as there are.

*Aging can modify the symptoms of disease*

Getting a good clinical history from the aged patient is often complicated by changes in the symptom pattern. Patients of all ages have difficulty in describing pain accurately, and the difficulty is greater among the aged. They are often unable to describe clearly the nature, location and distribution of pain and its relationship to such functions as eating and physical movement.

Aged persons react differently to the usual causes of pain. For one thing, tolerance is often higher than in young people, with the result that the aged may react slightly or not at all. On the other hand, some react excessively. Such reaction is often personality-associated; for example, the need for attention or excessive fears.

History-taking and ultimate diagnosis are complicated further by the tremendous variation in what aged patients consider "poor" health, what symptoms they consider "normal."

*Mental changes often confuse diagnosis*

Mental changes in old age frequently are related to physical disease, and often are reversible when the physical cause is relieved. Because this is so often the case, when mental changes occur in the elderly one might well follow the rule of assuming there is a physical explanation for these changes until this assumption has been disproved. Experience has shown that the more recent and unexpected the mental change, the more likely one is to find a physical cause for this change.

John Agate in "The Practice of Geriatrics" says: "In the wise handling of mental disorders, cases of unexpected anemia, uremia, dehydration, cardiac infarction or cerebral infarction, and many other physical diseases will be brought to light. Upwards of 40 percent of in-patients admitted to active geriatric departments have some degree of mental abnormality on arrival."

Agate advises that the error to avoid at all costs is the assumption that these persons, because of their advanced age, suffer from a senile psychosis. In his view, the latter diagnosis should be made by exclusion, and *only* by exclusion.

*Almost all the diseases can be seen in the elderly*

In his work with aged patients, the physician is quite likely to encounter almost any disease—even mumps. However, he will see certain diseases more frequently than others in this age group. The most common diseases are those associated with the circulatory system and arteriosclerosis. Arterial disease, in turn, is the most frequent cause of cardiac, renal and neurological problems. The elderly are especially susceptible to acute infections of the respiratory tract; also, the physician will see an increasing number of emphysema cases as well as other chronic lung diseases. Many diseases of the gastrointestinal tract are seen, most commonly functional gastrointestinal distress.

Cancer is a frequent cause of death in the aged population; often the cancers are of many years' standing. Although its incidence among the aged is less than is popularly supposed, and the signs less evident than in younger persons (the degree of malignancy is generally less), the physician will include cancer among the basic conditions which his diagnostic plan is designed to detect.

*The combination of being sick and very old produces its own dangers.*

Disease is only part of the threat to the well-being of the aged patient. Inactivity, dependency, depression—these are often caused by serious illness, but they may also be a consequence of getting old. Whether these are brought about by a long illness—or whether they are part of a way of life related to a withdrawn, even senile, personality—both the cause and the physical consequences demand the prompt and skillful attention of the physician.

Contractures, thromboemboli, pressure sores, secondary infections, dehydration, malnutrition—these and many other conditions are greater dangers to the patient as a result of being both old and ill. Allowed to continue, these conditions can become permanent handicaps or lead to death. Diagnosed and treated in time, many can be mitigated and cured. They can be prevented, too.

## II. The Physician and His Patient

*Comprehensive examinations and histories are essential to accurate diagnosis.*

Many diseases in the aged do not manifest themselves until considerably advanced. The discovery of asymptomatic disease must be a particular concern; where there is an acute illness, the physician must be alert for associated disease. All too often a disease is not diagnosed because the physician just didn't think of it. Examinations and histories, therefore, must be very comprehensive and painstaking in order to assure accurate diagnosis.

The history should inquire in detail into the patient's social life and habits, recreation, sleeping, eating patterns.

The history should provide a picture of the patient's family situation and his environment.

Taking the history will give the physician an opportunity to assess his patient's personality and learn something about his reaction to his environment.

As with all age groups, the history will include a determination of the incidence of familial disease, as well as the patient's history of disease.

The physician will elicit a description of the old as well as the recent symptoms and complaints.

Patience and understanding are the physician's most effective allies in the history-taking and examination process. Therefore, extreme shyness and modesty should be overcome before undertaking the physical examination. Giving the patient time to "feel at home" by discussing present or past employment, inquiring about children (especially grandchildren!) will help.

When a member of the family accompanies the aged patient, the physician must make sure that the patient is not exposed to great anxiety or humiliated by being ignored. For example:

- The physician should address the patient directly, and try to keep the family member from answering.
- Where the patient is hard of hearing, the physician should not permit the accompanying family member to speak so quietly that the patient cannot hear; the patient seeing the lips moving, and not being able to hear, can become frightened or uneasy.
- If the physician needs to consult the family member alone, it should be arranged discreetly; the patient should not be exposed to fear and anxiety by being asked to leave the room while the family member remains behind with the physician.

The examination of the patient should proceed at a sufficiently leisurely pace, without a rapid succession of tests, to avoid physical and psychological fatigue.

The physician must be prepared for behavior tending to confuse and make difficult the fact-finding process; for example, the patient hides symptoms or insists on a predetermined diagnosis.

During the physical examination and in interpreting test results, the physician will often have to modify his judgment of what is "normal": what may be "abnormal" values in younger persons may be normal for the aged patient.

Finally, the history and examination must be used (1) to help the physician estimate the patient's ability in terms of different levels of functioning, and (2) to establish goals for maintaining and extending these capacities.

Most important, the interview and examination should satisfy the patient that the physician is really concerned for his well-being and is prepared to understand and help him. One aspect of this concern can be manifested in the way the physician addresses his patient. Use of the first name and familiarities like "Mom," "Pop," "Grandpa," and phrases like "Isn't he cute?" detract from the dignity of the individual and tend to diminish his self-esteem. In urban settings where there are mixed ethnic groups, the physician can greatly advance his rapport with the patient by learning a few simple phrases ("How are you?" "How do you feel?") in the language of the patient. This shows that the physician cares. The attempt may even serve as an "ice-breaker" when the patient laughs at the physician's errors in words or pronunciation. It is a bridge with the patient who distrusts the "foreigner."

## III. The Physician and His Patient in Treatment

*The physician appraises his role in the therapeutic relationship.*

The physician-patient relationship is the key to success in any therapeutic program. All patients tend to invest their physicians with almost god-like qualities—the physician is a parent, he is the authority figure. This tendency is likely to be even more pronounced among the elderly, and the physician who understands this feeling in proper perspective can use it to encourage compliance with his recommendations and to stimulate in his patient a feeling of responsibility for his own health and well-being.

It is more difficult to give of one's self and one's time than it is to give a prescription or a pill. But it is just this giving that enables the physician to establish and maintain an effective helping relationship. Many practitioners deal successfully with the majority of their patients not with drugs but with advice and health education.

The physician can understand how the aging individual feels and behaves as a patient. He can recognize the different kinds of personality with which he must deal—the dependent, the timid, the hostile, the aggressive—all expressing a single basic need: to be understood and helped. As one psychiatrist put it, "It is a cry for help." With this understanding, expressed to the patient in clear and tangible terms, the physician can indeed give psychological and medical help.

*The physician looks at himself*

There are many aspects of the physician-patient relationship to which the physician may react quite unconsciously in terms of his own ego needs or frustrations. That the physician should react in these ways is quite understandable. However, he will have to look well at himself when he is under the stresses so often characteristic of the diagnostic or treatment situation with the elderly. He will guard against such reactions as these:

- The physician may tend to indulge in unnecessary manipulation of the patient in order to satisfy certain ego needs that may bear some relationship to the omniscience and omnipotence imputed to him by the elderly patient.
- The physician may encounter within himself a kind of professional skewing when the patient presents a problem outside his special competence. Such a situation may be threatening to the physician. It may produce anxiety, insecurity, and possibly even hostility to the patient. Problems which do not particularly interest the physician may also produce these reactions.
- When frustrated by a problem the patient presents, the physician may fall back upon those derogatory stereotypes of the aged which enable him to imply that these difficulties are the patient's fault and not his own.
- The physician frustrated by the patient for whatever reason may tend to disengage himself. This unconscious reaction may take the form of an unnecessary referral of the patient to a psychiatrist; escalation of drugs; saying to an adult child of the patient, "What do you expect? He is an old man."

*The physician prescribes a way of life for his patient.*

The prevalence of illness, particularly chronic illness, among older people places the physician in the position of determining the way of life for them. The physician plays an important role in psychological and social programing for his older patients. There is evidence, for example, that those who are happy and active show a slower rate of decline than those who are happy and inactive. The physician will wish to consider also the cultural and ethnic background of his patient; his recommendations should fit into the way of life of the patient, rather than reflect the physician's personal concepts of how life should be lived.

*The physician relates to the family of his patient.*

The family of the patient can assist or block the treatment program, depending on their understanding of the patient's needs and their sense of support by the physician. For with the family, too, the physician is an authority

figure—the all-wise, the all-helping. He can explain to the family the medical and psychological problems of the patient and involve them in whatever planning is necessary. He can help them with their own feelings, advise them as to community resources they may need for the patient, give them assurance of his availability. This assurance may take the simple form of letting them know he can be reached easily by telephone. He may have certain hours to receive and return calls. An understanding and sympathetic office staff can assist the physician immeasurably both with patient and family.

*The physician considers his patient's economic status.*

The economics of physician-patient relationships and medical care for the aged in general is apt to be complicated. Many aged persons are unable to pay medical bills. Generally speaking, the economic situation of the aged is improving through social security and private pension plans.

The fact still remains, however, that the "bill" is the root of many difficulties in the relationship between the physician and elderly patients. Very often the so-called "poor" elderly patient is not a true indigent; however, he may not be able to afford the normal fee, especially if the illness entails substantial hospital and other medical costs beyond Medicare benefits. He may even stay away from medical care because of what he knows or imagines the fee will be.

People choose their physician because of the way he treats them as individuals. A large factor in this choice, particularly for old people, is the "bill" and how the physician handles it. The physician can help in this situation by being open about the charges, taking time to discuss them with the patient and with the family if it is involved. Very often, the simple assurance of being allowed to "pay out" the bill will solve the problem. In many instances, there may be medical assistance resources, public and private, available to the patient of which he is not aware and for which he may be eligible.

It is hoped that the growth of health insurance plans under private and Government auspices will make this problem of medical finances less and less crucial in providing adequate health care for the aged. In the meantime, the patient's economic welfare—preventively—is also the physician's concern.

## IV. Elements in the Treatment and Care Plan

*Individualization of the surgical approach is very important.*

With the tremendous progress in surgery and anesthesia, operative risk and postoperative morbidity have been reduced to the point where age is rarely a barrier to surgical procedures. The physician will base his decisions about surgery for the aged patient on the same general factors that he considers for younger patients. The essential principle is individualization.

In elective surgery, the physician will evaluate physical and emotional assets as well as deficits, including previous disease. Only the goals will be modified, for usually the physician and the surgeon do not have to be concerned with getting the patient back to work. Their goal is to give the patient the maximum degree of independence, such as enough independence to enable an otherwise institution-bound patient to receive care at home.

Surgical wounds in the aged will heal surprisingly well, fractures will unite almost as quickly as in younger patients. Danger lies in the immediate postoperative complications, particularly infections (especially of the lungs) and thromboembolism.

In emergency surgery, the hazards are greater than in elective surgery, regardless of age. They are even greater, however, for the aged. This makes it imperative for the physician and surgeon to make their diagnosis and decision as rapidly as possible. It is often advisable, where circumstances permit, to do only those procedures that will relieve the immediate emergency, postponing major procedures until proper preparation can be made.

The very idea of surgery is often frightening to the aged patient and his family. The physician will find that both patient and family are likely to be much more cooperative if all the facts—the reality, alternatives, and conse-

quences—are laid on the line. The postoperative plan must be explained, and what modifications in the patient's, and sometimes the family's, pattern of daily living will be involved. A colostomy in the case of a bowel resection, a prosthesis in the case of an amputation, will influence patterns of living.

The physician who knows the family relationships will be able to spot the special emotional stresses which might influence the family's attitude and decision. Family resistance may be based on the stereotyped response, "What do you want of the old man? He's too old for surgery!" Then again there are children who hate their parents and overcompensate by being—presumably—protective in refusing to allow the surgery because "We can't cause papa so much pain and suffering."

In explaining a major surgical procedure and the postoperative plan, the physician should give complete information about resources and services available in the community to assist the patient and his family, and explain these resources to them. Knowing that this additional support is available will contribute to the confidence with which the patient—and the family—will enter into this new and fear-charged situation.

*Dietary management is determined by the disease rather than by age.*

There is no evidence that the aged ill require radical changes of diet and eating habits other than those dictated by the nature of the disease. On the contrary, because eating assumes greater importance for the aged, and because good nutrition is a vital factor in therapy, the physician should give special attention to the patient's diet. He should consider the patient's past history of food habits, taking into account the social, religious, racial and psychological factors. The Orthodox Jew or the Seventh Day Adventist is not likely to partake of standard hospital fare that includes pork dishes. The Italian who has eaten pasta all his life will not give it up easily, especially if his illness does not specifically exclude it. The man who insists that he has done very nicely without milk for most of his life is not likely to accept it at age 70 because he happens to be ill.

Meal spacing is very important. Because heavy meals tend to lessen utilization and absorption of nutrients, it may be desirable in certain cases to recommend four or five light meals a day instead of the traditional two or three heavy meals.

Finally, the physician must remember that eating should be a pleasure, and this is especially true for the aged. Anything that will add flavor to food and stimulate the desire to eat can only assist therapy. Traditional foods in the patient's background will add to his enjoyment.

*Shall the patient be treated at home or in the hospital?*

It is generally agreed that patients are happiest in their own homes, with their families at their side and familiar objects around them. Also, care at home is likely to be less costly than in the hospital. Therefore, the physician will have to decide whether the home situation will permit him to leave the patient there for care. If he has to refer the patient to the hospital, he will have to decide how soon to discharge the patient home.

Well organized home-care programs, both hospital and community based, have demonstrated that many medical conditions can be handled at home, if the family is willing. Any responsible adult can learn how to give injections, use suction and oxygen, and handle emergencies. What is essential is the assurance that professional aid is quickly available. The availability of nursing service is another decisive factor. Where there are organized home-care programs, the family will receive the medical and moral support of the full range of care services offered by the home-care team.

The basic support, however, must come from the physician himself. Where the family has any doubt about its ability—or willingness—to care for the patient at home, the most meaningful and effective reassurance they can get is from the physician himself.

*Community resources assist the physician with his patient.*

It is rare that a physician has to carry the burden of patient care, including home care, alone.

He can call upon a broad range of supportive services and resources to assist him in caring for his patient. In the larger communities he can call upon visiting nurses, physical and occupational therapists, social workers, clinical psychologists, homemakers, practical nurses and many others in the health care "family."

If he does not have the needed information at his fingertips, he can obtain it usually by a telephone call. This kind of information is almost always available at the local Council of Social Agencies or Health and Welfare Council. If the hospital with which he is affiliated has a social service department, he will certainly be able to get the information there. Many family service and public welfare agencies will probably be able to refer him to the assistance he may need.

In the smaller communities, the physician will probably know what services and resources exist and how to call upon them. What he may not know is that many States are trying to organize such supportive services on a decentralized and mobile basis so that they can be made more easily and quickly available to the smaller community. A letter or telephone call to the State Department of Health (or the Division of Chronic Diseases or the Office of Aging, where they exist) will get him the necessary information.

A too-often neglected "community resource" is the minister, priest, or rabbi of the patient. Even if the patient is not affiliated with a particular church or synagogue at the time of his illness, he may welcome the visit and counsel of a minister. Many hospitals have chaplains who play an important role in the therapeutic team. Clergymen are responsive to the physician's request for assistance, whether the patient is at home or in the hospital, whether a member of his congregation or not.

*Rehabilitation begins with the onset of illness.*

It is evident that all human capabilities must be used regularly if they are to be kept at the highest pitch of efficiency. This applies to both physical and mental functions, and it is more true for the elderly than for any other age group.

Whether the patient is in the hospital, the nursing home or his own home, rehabilitation must begin with the onset of illness. Inactivity must be avoided. The old principle of resting that part of the body which is diseased is being discarded.

Dependency must also be combatted, for it will later become a pattern of living dangerous to the patient and a burden to his family or the community. The entire care team—physicians, nurses, family and others—must be alerted to have the patient do for himself. The patient must get out of bed whenever possible. There is ample evidence that a program of convalescence which stresses activity as an adjunct to treatment reduces the period of hospitalization. Research has also demonstrated that ambulatory and chair patients are less likely to soil their beds.

The physician and staff must guard against the development of contractures; the condition of the skin, nutrition and adequate fluid intake must be watched carefully; infections must be looked for and eradicated.

Frequently the main medical condition affecting the patient is less disabling than some apparently trivial one. For example, the patient may suffer from severe arthritis, yet his main handicap may be defective vision. With glasses he may readily adjust to his more serious condition and make adequate compensations.

Rehabilitation programs can be undertaken as part of home-care or outpatient services. The average family can manage a disabled patient where:

- he is able to walk or move from bed to chair without being lifted;
- he has normal or near normal control of excretory functions;
- he can take care of the essential elements of his personal needs—eating, bathing, dressing, etc.;
- his mental condition is adequately clear;
- the medical care program can be adapted to the patient living at home.

Inability to walk is common, and results from many conditions or diseases such as stroke, fracture, arthritis, contractures. The physician must determine the mechanism of disability (it is not just "old age"), arrive at a prognosis, and determine the treatment goals and plan. Even if complete restoration of function cannot be achieved,

he should strive for the highest possible level of function.

Incontinence is a disability that makes the patient almost impossible to care for at home, and it should be treated aggressively.

Constipation, not unusual even among well aging persons, is aggravated when the patient is confined to bed. It is more prevalent among women than among men. There is unquestionably a strong neurotic factor associated with bowel movements; many patients will complain of constipation when it doesn't exist. On the other hand, constipation may be present in mentally disturbed patients and even mentally normal ones who do not complain of it. Growths and other causes may obstruct the lower bowel and rectum. Therefore, it is advisable to investigate promptly a first sign or complaint of constipation.

The mental condition of the patient usually improves as his physical health gets better, but all steps should be taken to keep the patient interested in his surroundings, his family and himself.

## V. The "Diseases" of Treatment

*Iatrogenic disorders can add to the dangers of illness*

Physicians, nurses and other members of the medical care team can add to the dangers of illness through a combination of over-prescribing and over-medicating, over-caution, misguided sympathy, and—more dangerous than all the rest—the failure to treat each aging patient as an individual. Some iatrogenic, or treatment-related, problems include:

- A moderate smoker with manageable hypertension is told to give up smoking because the physician knows that, in a general way, smoking is not good for health. But the patient has lived quite comfortably for many years with both his hypertension and his moderate smoking, and giving it up may cause sufficient emotional upset and tension to make the management of his hypertension a much more serious problem than it has been.
- An elderly patient is suffering from serious cardiovascular disease, about which the physician issues solemn warnings. These may not help the patient but are quite likely to cause him needless anxiety and misery.
- Many older patients react badly to certain drugs, including nitroglycerin, digitalis, anticoagulants, certain steroids, morphine. In many instances, dosages must be reduced if the drug can be used at all. Another danger is in prescribing several drugs simultaneously where one drug may reduce or neutralize the efficacy of another, or the total combination may produce an unfavorable reaction in the patient.
- Sedative, hypnotic and analgesic drugs are too often prescribed and administered indiscriminately, more often than not, simply to quiet a troublesome patient. Sometimes the family of a confused and restless patient will ask the physician to prescribe a sedative for the patient. Or the nursing staff will ask for sedation of a patient who is disturbing others. Patients who have difficulty sleeping, and they are many, will ask for hypnotic drugs and may become dependent upon them. Similarly, patients with minor discomforts and a low pain threshold will demand "pain killers."

*The patient in treatment may cease to be a person*

The aged patient who is not treated as an individual may cease to be a person. The patient who no longer sees himself as a person is much more likely to go into rapid decline or become a "vegetable" than the patient with a strong sense of individuality and worth.

Large institutions often initiate and hasten this process of "depersonalization." It has been said that hospitals are for disease, not for people. When this point of view prevails, patients are fitted into the needs of institutions. This is particularly true of the aged sick who are usually far less capable of "fighting back" than younger patients. The routines, the staff, everybody and everything encourage him to be a "good patient," one who doesn't complain, one who doesn't make difficulties for other patients or the personnel.

The irony and tragedy is that this type of "good patient" becomes depressed and poorly motivated for treatment, and is then condemned for being too dependent. The staff forgets how they encouraged this response.

*The patient must be encouraged to maintain an identity*

The attitudes and relationships of the staff to the patient, the schedule, special arrangements for self-care—all these should be adjusted to the individuality of the patient. The physician in particular must ask continually: What is this individual capable of becoming? Where can he live, and under what circumstances? What is meaningful and possible to the patient, and how can he be helped to reach these goals?

## VI. Dying and Death

*The physician must reexamine his responsibilities to the dying*

The physician needs to reexamine his position on dying and death. "The classical deathbed scene, with its loving partings and solemn last words, is practically a thing of the past. In its stead is a sedated, comatose, be-tubed object, manipulated and subconscious, if not subhuman. Families and their emotional and economic resources deserve some reckoning, too. And finally, all of us are potential patients. Surely we need to give these questions a fresh look, even though the obligation lies heaviest on leaders in medicine and allied fields. . . ." So said Joseph Fletcher in a national magazine.

Pope Pius XII enunciated a moral law that the physician need not use "extraordinary means" to keep a patient alive, leaving the definition of "extraordinary" to the physician. The Anglican Bishop of Exeter, Dr. R. C. Mortimer, defined "ordinary means" as such actions which do not cause grave hardship to the patient and which offer a reasonable hope of success. "Extraordinary means" are those which involve great expense, inconvenience or hardship, and which at the same time offer no reasonable expectation either of success or benefit.

*Should physicians talk to old people about death?*

Death is the most momentous and significant event that all old people must face.

Religious faith makes the prospect easier for some. To them, God is a friend, and death is but an incident. Others reason that they don't fear death because they have completed life.

According to Elizabeth Horder, "There are some who seem too intellectually dull to look further ahead than the next twenty-four hours; a few who have had great physical suffering will say that they long for death. But many old people are anxious, restless, unstable, morbidly preoccupied with health, and excessively fearful of illness."

This gives rise to many questions for which answers must be found. Should doctors talk to old people about death? Can this be done without upsetting them? Is this too much of an intrusion upon private feelings? Are discussions relating to death solely the responsibility of the clergy?

The physician is in a position to help patients who are facing these problems and difficulties. He may help merely by giving them an opportunity to discuss with him their fears and uncertainties. The role of the physician under such circumstances is dependent upon the doctor-patient relationship, and some degree of familiarity and confidence between the two is essential.

## VII. Only the Physician . . .

*The problems are great, the rewards can be greater*

Treating elderly patients can be dull and unsatisfying. It can be exciting and rewarding. Only the physician can truly understand the frustrations and satisfactions in working with the total human being and his environment. And this is what is involved in working with the elderly.

It is indeed work and more work, for their morbidity is higher and their illnesses are longer, and they need more care and more supervision and more personal attention.

It is frustrating because the signs are not clear, the problems are multiple and, with all his efforts, the physician, trained to work for total cure, must too often settle for something less.

Yet he sees these aging patients in increasing numbers, for their number in the population is growing. And the care they need is the care that only their physician can give them.

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## HEALTH PROTECTION AND THE INDIVIDUAL

> *"If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away."*
> —*Thoreau*

Getting older is universal but "growing older" is personal. Aging itself is beyond one's control, but how a person ages is something he can influence substantially. He can strengthen his chances for health through periodic medical examinations. He should be urged vigorously to have them.

Health and health-related practitioners should help the individual understand his "normal" changes. They should help him "keep step" with his own music. Most elderly persons don't resign. Even though modern society tends to reject him, the elderly individual generally strives to live fully despite difficulties of aging.

He needs help. His health is a responsibility of practitioners and the community; their roles are discussed in subsequent chapters of this section on health protection. The individual has a role to play himself. Some of the knowledge practitioners can bring to the elderly is presented here. Further information appears in other volumes of this series.

### *Accident prevention**

Accidents represent one of the greatest threats to the aged who are well. Accidents are the third most frequent cause of death among aged males, the fifth among aged females. For every fatal accident there are probably two hundred non-fatal but disabling accidents.

The automobile is the No. 1 villain—not to drivers but to the aged pedestrian. The second most common type of accident is falls, 60 percent of which occur in the home, most frequently falling down stairs. Burns rank third, especially frequent among women.

The risk of accidents among the elderly is increased by such general physical changes as impaired vision and hearing, loss of sense of smell, slower reflexes. Older persons should be made aware of the possible effects of these changes and of their own specific limitations. Healthy older adults need not limit their activities because of the higher incidence of accidents among the aged. Nevertheless, knowledge as to how and where accidents occur and an awareness of one's physical and emotional state can cut down the incidence and dangers of accidents.

### *Climate and clothing***

#### *Climate*

Climate is not significant in the maintenance of good health or on the process of aging. To be sure, certain conditions—respiratory diseases, for example—are less prevalent in warm climates; arthritics often feel more comfortable in warm places. Nevertheless, older persons do quite well in colder climates. In fact, contrary to popular belief, the States with the highest percentages of 65-and-over residents are such northeastern States as Vermont and Maine, such midwestern States as Iowa and Missouri. The

*See *Housing* in this chapter and *Environmental Safety* in Volume III: The Aging Person: Needs and Services.

**See *Shelter* and *Clothing* in Volume III: The Aging Person: Needs and Services.

older person should understand that with appropriate clothing and proper heating and ventilation of the home, he can live anywhere.

Although climate may not be a decisive factor in health of all the aged, it is true that as the body ages it loses some of its ability to adjust to extreme variations in the environment. Elderly persons should be advised to protect themselves against:

- —extreme heat (which upsets normal fluid and mineral balance);
- —extreme cold (which causes narrowing of blood vessels and may therefore put a greater strain on the heart);
- —extreme dampness (with its higher incidence of upper respiratory infections);
- —over-exposure to sun, heavy winds or any other extreme of weather (among other reasons, in the case of sun, to keep a healthier, less wrinkled, more attractive skin).

*Clothing*

Clothing plays an important role in physical health and emotional well-being. Cost, fit, and style are factors in the selection of clothing. The size and shape of one's body change, styles change—the individual must try to keep up with both. The elderly should be encouraged to take pride in their dress and appearance.

Because older persons tend to feel changes in temperature more acutely, their dress should take into account changes in season and weather.

The ease in putting on and taking off clothing should be an important consideration in selection, particularly where the individual has some disability.

Comfort in wearing clothes should be another important factor in selection. One should avoid tight garments, garters, and belts that may interfere with circulation.

Foundation garments can contribute to appearance by supporting sagging muscles. However, women should be advised to avoid tight corsets and girdles which might interfere with diaphragmatic breathing.

Shoes should fit well and be comfortable, and should provide good support for walking (healthful shoes need not be ugly and "old-fashioned").

*Mobility**

Maintaining mobility in the aging patient is a basic goal of the physician, and he will need his patient's cooperation.

Whether it takes the form of walking, driving or the use of public transportation, mobility—the ability to get about—is basically important to the older adult's independence and feelings of self-esteem. It has a very direct bearing on his physical health. Mobility is essential to the business of daily living—shopping, visiting a clinic or one's physician, taking care of one's business and other activities.

Mobility is essential to maintaining one's relationships with family and friends.

Mobility makes possible new interests and activities and therefore adds zest to living.

*Walking*

Many older persons enjoy walking so much that they select their place of residence in order to be able to walk to shopping, recreation resources, family, or at least to be within comfortable walking distance to public transportation.

Walking is excellent physical exercise. It has the advantage of being the kind of activity one can do alone or in the company of others. Also, it can be regulated to the convenience and energies of the individual.

The elderly pedestrian should be urged to:

- —wear proper shoes and comfortable clothes;
- —rest when he feels tired;
- —avoid pedestrian accidents (for example, by crossing streets at traffic lights).

*Driving*

Individuals age at different rates, and the aging individual compensates for disability. Healthy people in their sixties and seventies are more frequently involved in highway accidents than middle-aged persons, but they are safer drivers than teen-agers and many persons in their twenties. Although reflexes are often (but not necessarily always) slower, the elderly

*See *Mobility* and *Environmental Safety* in Volume III: The Aging Person: Needs and Services.

driver tends to exercise greater caution and better judgment than the younger driver.

Older adult drivers should be reminded that:

- The car should be kept in good condition, with particular attention to brakes, lights, accelerator, exhaust; if reaction time is somewhat slower, all the more reason to make sure the brakes, for example, are in perfect working order.
- Glasses and hearing aids, if prescribed, should always be used when driving.
- Seat belts are a "must."
- Brake and accelerator should be widely separated to avoid accidental acceleration.
- They should avoid rush hours.
- They should not push themselves to the point of exhaustion, and they should be aware of their physical limitations and temperament when driving.
- If they have dizziness, temporary blackouts, and similar conditions, they should not drive.

The basic rule for all drivers, but particularly for elderly drivers, should be: "Know thyself."

*Public transportation*

Travel for fun and to visit family is possible through public transportation as never before.

For long trips public transportation is often as cheap as, and certainly less tiring than, driving a car. Bus companies, railroads, and airlines are competing for the business of a growing leisure class: retired persons. Fares are getting cheaper, special "deals" are offered, more and more comforts are available. For local travel, public transportation relieves the older adult of the pressures and responsibilities of being the driver.

### *Drugs and Medicine*

Older adults often have to take drugs and medicines regularly. Very often a single drug or even a complicated drug regimen makes it possible for the individual to lead a normal and productive life. However, there are certain major principles which the aged person should understand and practice.

- The patient should not hesitate to ask questions to be sure he understands the physician's instructions. Also, he must let the physician know about any circumstances which might interfere with his ability to carry out the instructions.
- He should avoid self-diagnosis and self-doctoring.
- He should take drugs only upon medical advice and under his physician's supervision, not on the "prescription" of friends and neighbors.
- He should carry in his wallet information about drugs or other special treatment he is taking, and the name and telephone number of his physician.
- He should inform the physician of previous experiences with drugs, especially unfavorable reactions.
- He should discontinue immediately any medication which causes nausea, vomiting, hives, skin rashes, inflammation of the eyes, and exhaustion. He should check any of these immediately with his physician.
- Medicine chests should be cleaned out regularly and old medicines discarded; all medicine bottles should be labeled in large, clear letters.

### *Family*

Important to health are family relationships. If a spouse dies, it is often preferable for the widowed member to live alone, in familiar surroundings, thus removing the need to make further new adjustments. On the other hand, if the widowed member wishes to live with his children, and if the children too wish this, the move should be encouraged. There are no rules, only the particular needs and problems of individuals and the understanding of the needs and problems of others—spouse and children.

When living with children, older parents should be reminded that:

- They should strive to continue their own friendships and activities.
- Parents should help financially if they can and should assist with the family chores where possible. If children become overprotective and do not let the parent work or help, the parent should not hesitate to tell the children of his need to work or to help.

—They should refrain from giving unsolicited advice, or taking sides in disputes between children and their children, or between husband and wife.
—Older parents should avoid reproaching their adult children for neglect. These adult children have full lives of their own. What older parents may assume to be lack of love may be preoccupation with problems.

When living with a spouse, older persons should be helped to understand that:

—Mates may age at different rates. Where these differences exist, they should be recognized and discussed. A spouse should let his mate know that he too is growing old. Nothing can be more damaging for a wife than the feeling that she is aging while her husband remains young. The converse is equally true.
—Spouses should develop new interests together.
—Mates often vary greatly in their sexual desires in later years; this should be understood and adjustments made.
—When serious problems arise in their relationships, an elderly couple should seek professional help.

*Food, nutrition and eating**

Food is the object, nutrition is the biological process, eating is the social behavior. Each has a particular and vital role to play in the well-being of the aging person.

It will hearten the aging person to know that if his food habits are basically sound, little change is necessary in later years. It may be necessary to change shopping habits to adjust to a smaller family, or learn how to prepare appetizing menus for only two persons, or only one. But the kinds of foods one eats need not change with age.

Nor is it necessary to have vitamin pills, if a balanced diet is maintained. Thus, vitamin purchases generally are an unnecessary burden on the incomes of the elderly.

Digestive processes slow down, and older persons should be encouraged to adjust meal size and frequency. They may find small, frequent meals better than the customary two or three large meals a day.

Where necessary, older persons should be advised to reduce caloric intake to a level consistent with the degree of activity. A suggested optimal weight is the same as one's weight at age 25; there should not be any marked increase. The criterion for caloric adequacy should be an intake which maintains optimal weight. Fasting or drastic diet is not desirable.

Malnutrition may be responsible for many of the aged's complaints of general weakness, irritability and other psychological symptoms. The deficiencies lie principally in inadequate intake of protein and calcium, and in inadequate supply of essential vitamins. Sometimes these deficiencies are a consequence of reduced income and the resultant increased proportion of carbohydrates—usually cheaper than meats—in the diet. They may also result from poor cooking and eating habits. Diet advice to the elderly might include these hints:

—An adequate supply of fruit, vegetables and milk will provide most vitamins and minerals.
—Some of the more easily digested foods are those that are boiled or baked, or low in fat content, do not demand a great deal of chewing, and are well cooked.
—Some of the more difficult foods to digest are those that are fried, are highly seasoned, contain large amounts of fat, gravies and heavy sauces, and certain raw fruits and vegetables and foods heavy in carbohydrates.
—The role of fats in maintaining health is still a subject of controversy. Research is not yet sufficiently conclusive to recommend drastic changes in the kinds of fat (saturated and unsaturated) that should be consumed. However, it would be prudent for persons with atherosclerotic heart disease or a coronary occlusion to eat less fat and to substitute unsaturated for some of the saturated fat.
—Generally speaking, the diet should be low fat, medium carbohydrate, high protein.
—A sudden and persistent loss of appetite should get medical attention. Poor appetite is often related to the poor condition of

*See *Food, Nutrition and Eating* in Volume III: The Aging Person: Needs and Services.

the teeth or ill-fitting dentures, and they should be checked.

Other suggestions for eating and diet might include:

- To prevent constipation, include fruits and vegetables and foods with bulk. Older persons should be discouraged from the habitual use of laxatives.
- In hot, humid weather, daily fluid intake should be increased to 6 or 8 glasses, and salt intake increased, unless contraindicated medically.
- Heavy meals should be avoided at all times, but particularly before going to bed.

Eating is very important to older persons. It should be enjoyed. The older individual who lives alone should be encouraged to invite a friend or relative to dinner as often as is feasible, so that eating becomes a social occasion. Anything else that adds to the pleasure of eating should be encouraged—for example, the use in moderation of spices, coffee or tea, wine or other alcoholic beverages.

Eating and food intake are very closely entwined with emotions and moods. Thus, when a person is tense, he may overeat. Or the angry or hurt elderly person may eat very little, expressing his protest through a sort of self-imposed starvation. Emotional good health is important to good eating and adequate sustenance; good eating and adequate sustenance are important to emotional good health.

### *Health insurance*

The situation with respect to health insurance for the aging population will continue to improve. More and better private plans—commerical and nonprofit—are available, and Federal legislation now provides health insurance benefits for the elderly. Blue Cross-Blue Shield and private companies offer policies supplementing Medicare.

Practitioners who work with older persons should make them aware of the importance of health insurance and should give them some basic information.

For example:

- The elderly should consider the voluntary medical insurance under Medicare.
- People should not wait until age 65 to seek health insurance coverage. They should select a plan early, and one that cannot be cancelled by the carrier because of age.
- Where available, a plan should be selected which includes office and home medical care as well as hospital care, or supplements Medicare.
- The plan should have catastrophic illness coverage.
- The premium for persons approaching age 65 should not be more than three times the premium for coverage at age 35 to 40 years.
- Group insurance is usually less expensive than individual plans.
- Group health plans are advisable, but not available in many parts of the country.
- Older persons should be urged to get competent information about benefits to which they may now be entitled as a result of their participation in a union plan, company plan, social security, Veterans Administration programs.

### *Housing**

Housing is a symbol of security and status. Two-thirds of the 65-and-over population own and live in their own homes. They prefer this kind of independent living.

It is extremely difficult for elderly persons to make drastic changes in housing arrangements. The last possession an older person wishes to let go is his home, even when other arrangements are more practical and desirable. Many homes owned by the elderly are outmoded; at least half are not suited to their needs, require repairs, or are unsafe. Their neighborhoods are frequently deteriorating. The aged owners often feel threatened with economic loss, find themselves in changed neighborhoods to which they cannot or will not adjust, and have problems in maintenance and upkeep.

Nevertheless, the aged prefer their own homes and the environment in which they have spent a productive lifetime. And sometimes the exercise of a little imagination may make the difference between being able to remain in one's home and having to leave it. For example, an elderly

*See *Shelter* in Volume III: The Aging Person: Needs and Services.

widow living alone in her large house took in a few roomers. Thus she had some extra income, some company, and some responsibility and work to keep her busy. In a neighborhood where getting adequate help was a problem, a group of elderly home-owners set up a cooperative organization to provide maintenance service at minimal costs. Also, it is now possible to obtain low-interest Government-sponsored rehabilitation loans for those persons who would like to remain where they are but whose homes need considerable fixing.

Often, however, change is necessary or desirable. Through a combination of private and public resources, an increasingly wide range of choice in living arrangements is being offered to the elderly. Income often is the key factor. Low-cost public housing, and government-aided housing developed by churches, unions, and other non-profit groups are available.

Where income is not a deterring factor, there is a growing range of choice among apartment houses, apartment hotels, two-family dwellings and the like. Many non-profit groups are making available housing for the middle-income group of elderly on a comprehensive basis, including living quarters, meals and, in many instances, medical care. Also, there is the growing number of retirement communities.

Where a choice is available, the individual should be helped to consider the various possibilities in terms of his particular needs, social habits, temperament. He should be urged to seek answers to such questions as these:

- Is good public transportation easily available?
- How close is a shopping area, recreational resources?
- How close are family and friends?
- How close are medical facilities and his physician?
- Is the housing only for the elderly? If it is, is this what he wants?
- If it is high-rise housing, is this what he wants?

Above all, he should be cautioned against high-pressure ads for housing—whether in retirement communities or apartment houses and hotels—with which older adults are being deluged. Most retirement housing is developed by legitimate businessmen, but there are always those who are promoting dishonest and shady deals. Even where the offering is perfectly honest, no housing should be purchased or contracted for without thorough checking and expert advice.

Housing should have the proper design for the older person's present living needs and for safety and convenience. It should also take into account any special limitations or disabilities of the individual, such as cardiac or orthopedic conditions.

There are certain minimum elements* of safety and design for houses and apartments such as:

- Adequate sunlight, heat and ventilation.
- Rooms on one level, floors with non-slip materials, especially in bathrooms.
- Bath-tubs and showers with grab bars or safety rails and non-slip bottoms.
- Cabinets and closets accessible without use of stools or frequent bending.
- Electric stoves if possible; if not, oil and gas stoves vented to the outside.
- Fireplaces, radiators and stoves with fireguards.
- Labor-saving devices as economically feasible.
- Telephones and buzzers in apartments to summon help in emergency, and someone to "look in" periodically.

When living with children, the elderly should have living quarters with easy access to toilet and kitchen and which require minimal use of stairs.

### *Leisure and the use of time***

Satisfying and constructive use of leisure time is a key factor in the morale and self-image of the aging individual. Where such use of leisure time also involves some sports activity and exercise, it becomes an important contributory factor to promoting physical health. In general, there

*See *Environmental Safety* in Volume III: The Aging Person: Needs and Services.

**See *Satisfying Use of Time* in Volume III: The Aging Person: Needs and Services.

is a very strong relationship between good health and active living; this relationship should carry over from one's working days to retirement. The meaningful and satisfying use of leisure is the means by which this carryover can be achieved.

More and more facilities, programs and resources are becoming available to assist older persons to meet their leisure-time needs. However, preparation for the satisfying use of time must begin long before retirement with the development of broadened interests and recreational pursuits.

Continued interest and participation in the world outside of one's immediate sphere, in one's community, can be personally satisfying while contributing to the happiness and well-being of others.

Many sources of information, advice and assistance in planning for the use of leisure are available. The elderly person should consult his physician on which activities are preferable from a health viewpoint. Churches, community centers, unions and other groups not only are themselves very often the sponsors of leisure-time activities but are usually good sources of information and referral. The newspapers list innumerable activities that are available to the general public, many of them at nominal or no cost.

Perhaps the most important single factor in enjoying and making the best use of leisure time is a positive attitude towards leisure. In our work-oriented society and with our Puritan ethic of idle hands making work for the devil, we tend to look down upon leisure and upon those who do not produce, including ourselves if we are the non-productive ones. But society is producing more and more leisure for more and more people, not only those who retire or are retired at age 65.

Beginning with a positive and happy acceptance of leisure, older persons should be urged and helped to:

- do what they enjoy doing, not what they think they ought to be doing;
- find new ways to use old skills;
- look for opportunities to serve others;
- if they really enjoy doing nothing, do just that.

*Mental hygiene*

The best mental hygiene begins in early life. Plato, in his "Philosophy of Old Age," summed it up by saying: ". . . the regrets and complaints . . . are not old age but men's characters and tempers; for he who is of calm and happy nature will hardly feel the pressure of age, but to him who is of an opposite disposition, youth and age are equally a burden."

The first rule of mental hygiene is to keep open the channels of communication with one's surroundings.

Another fact to remember is that there is not a necessary parallel between chronological and psychological old age. The maxim, "You are as old as you feel or think," has much to commend it.

Many elderly persons worry about their state of mental health when they find themselves indulging in reminiscence. This should not cause concern in and of itself. The pattern of "life review" and reminiscence, fairly universal in older persons, can help strengthen the ego, give new meaning to life, and help mitigate a fear of death.

Our society has come to accept emotional and other health problems as part of the baggage of daily living. The older person, therefore, who is experiencing a mental health problem and hesitates to seek competent help, out of a mistaken sense of shame or fear of being considered "crazy," should be helped to see his mental health problem as he would any other health problem. Self-depreciation, loss of appetite, insomnia (particularly awakening in the early morning hours) may be symptoms of depression. Many ostensibly psychiatric problems are caused by physical disorders.

The older person should be warned that self-diagnosis is dangerous. He should be encouraged to talk to his physician, who will either help him personally or direct him to the help he needs. Other sources of information and assistance include the person's minister, community hospitals, mental health centers, family and other social agencies.

*Personal habits and activities*

Personal health habits are developed early in life and generally do not change as one ages.

Health education and group experiences can be used to encourage personal habits which contribute to well-being. Individuals can modify their mode of living and, in turn, affect positively their total adjustment to aging.

Essential to good health are a continuing relationship with a personal physician and a regular program of physical examinations and disease detection. All practitioners should remind the elderly of this fundamental need.

*Eye hygiene*

With regular eye examinations, conditions such as cataracts, glaucoma, and retinal detachment may be diagnosed and treated early.

Prompt medical attention should be given to any foreign particles in the eye, eye injuries and inflammations. Older persons should be urged to wear protective goggles or a face shield when working around dangerous tools or equipment in a home workshop or hobby center; they should protect their eyes against chemicals as well as foreign bodies.

When reading and working, they should have good light.

The eyes should be protected against bright sunlight.

Good general health is important; many conditions (e.g., diabetes, arteriosclerosis) can impair vision.

*Care of the feet*

Poor condition of the feet is one of the common problems which result from neglect. Elderly persons—or their families—often do not consider complaints serious enough to warrant medical care. The sufferer may become homebound, with important medical, emotional and social consequences.

Improper footgear is the leading cause of most foot problems, particularly in women.

Somewhat greater susceptibility to foot infections occurs among the elderly because of more frequent circulatory problems.

Older persons should be urged to observe the basic rules of good foot care, including the following:

- Keep feet clean, dry and free of infections.
- Avoid tight garters.
- Walk—it's good exercise.
- Keep the feet warm to avoid frostbite and gangrene.
- Avoid self-treatment of calluses, corns, infections, ingrown toenails, and other foot conditions.
- Make sure shoes fit well and have proper arch supports.
- Seek prompt medical attention for any symptoms of swelling, discoloration of toes, numbness; the symptom could be serious.

*Hearing*

Since the hearing loss most common to old age is generally not remediable by medical treatment, the physician should be selective in recommending audiometric examination. If a hearing loss is such that a hearing aid could possibly be used, such a recommendation should be made only by a professional audiologist after medical reports have been obtained from the appropriate physician specialist.

Surgery on the ear is generally quite safe for older people but not expected to be helpful in a large number of cases.

*Personal hygiene*

The practitioner should encourage habits of personal care, such as washing and bathing, care of the nails, care of the hair, brushing the teeth, keeping one's clothes clean, etc.

Any neglect of these regular habits is frequently a symptom of depression and withdrawal; these conditions, not the symptoms, must be treated.

*Physical activity and exercise*

Regulated physical activity—indispensable to a well-functioning body—should be encouraged. Exercise helps maintain the reserve power of the heart and lungs and contributes to general muscle tone.

Most elderly people should avoid competitive athletics. Exercise which does not involve sudden strenuous efforts is preferable; for example, cycling, walking, swimming. However, exercise should be done regularly—the elderly weekend or summer "athlete" is running risks.

Physical activity should be relaxing. Older persons generally can continue the physical

activities to which they are accustomed, but should be advised to make appropriate adjustments in pace and quantity.

Older persons should be advised to avoid exercise under adverse conditions: extremes in temperature, after a heavy meal, or when one does not feel completely well. No activity should ever be pushed to a point of discomfort or distress.

*Sleep*

The amount of sleep required by an older person varies greatly. The traditional viewpoint is that with advancing years there is less need for sleep. However, more recent evidence is to the contrary. In any case, it is safe to assume that one's sleeping habits in middle age will carry over to old age, and these need not be substantially modified. As a general rule, the individual should get enough sleep to awaken refreshed.

Insomnia, a frequent and troublesome complaint, is most often the result of anxieties and emotional disturbances. The causes should be ascertained and treated. The elderly should be cautioned against relying on sleeping tablets.

*Smoking*

The relationship of smoking to lung cancer and some forms of heart disease is generally accepted. Stopping or cutting down on smoking is recommended for people of all ages. The emotional impact of stopping smoking has to be considered. The physician will decide whether the risks of continuing are outweighed by the emotional upset for habitual elderly smokers. Nonetheless, stopping is especially recommended in specific circulatory or respiratory conditions.

*Care of the teeth*

Teeth, with proper care, can remain in good condition throughout the lifespan. However, teeth are too often neglected. Dental deterioration occurs earlier than necessary.

The elderly should be advised that:

- Teeth or dentures should be brushed regularly and frequently.
- They should see a dentist regularly.
- They should consult a dentist immediately about any broken or jagged edges resulting from brittle teeth, or about repeated infection or gum bleeding.
- Diseases of the gums, possibly symptoms of vitamin deficiency or blood disease, should be investigated promptly.
- Extractions should not be accepted as a substitute for possibly extensive dental repairs. One's own teeth, in good repair, are generally better than dentures.
- They should maintain a balanced diet, and be on the alert particularly for calcium deficiency.

*Sexual needs*

Sexual needs and desires do not undergo an abrupt change with advancing years. The sex organs change more than do the individual's sexual needs. The capacity for reproduction ebbs more rapidly than does the sexual desire. Abrupt loss of desire is generally symptomatic of psychological factors.

Society, including the aged, lacks general understanding of the sexual urges, capacities and expression in older people. Social conditioning is a particularly important factor in the sexual attitudes and practices of older persons; women more than men are dominated by social custom and restraints in early and later life. However, here again, the individual's history largely conditions his sexual patterns and attitudes. Well adjusted persons do not have sexual problems because of aging.

According to Kinsey, 80–85 percent of married couples between 60 and 65, and 70 percent of those between 65 and 70 years of age, engage in sexual intercourse. Some 50 percent of men retain their potency after 70. There is also little decrease in sexual desire by women after menopause. Removal of the uterus and ovaries does not influence sexual desire and capabilities.

Sexual activity has little or no adverse health effect on most aged individuals. It may involve greater exertion for the male than for the female, since it is more of a strain on the heart and arteries of the male, though not dangerous for the healthy person.

For older persons in good health, special precautions in sexual intercourse are not particu-

larly indicated. However, to minimize possible strain, they should be cautioned against sexual intercourse when physically exhausted or after a heavy meal; they should not attempt to hurry, and if there is any difficulty in consummating the act, they should abandon the effort rather than strain for completion.

Perhaps the most important advice that practitioners can give the elderly with reference to sexual relations is that as long as they maintain sexual desire and are able to satisfy this desire, they should not consider this activity in any way abnormal or inappropriate.

*Work and retirement*

There are many advantages—financial, social, psychological—in continuing to work after age 65. Generally people are happiest, in our work-oriented society, if they are able to continue at their jobs as long as possible. However, responsibilities and schedules should be tailored to the physical and emotional needs and capacities of the individual.

The adjustment to aging is usually easier for women than for men, because the adjustment begins at a much earlier age and comes gradually. Long before the age at which men usually retire, women have given up their important roles of bearing and raising children, and their home-making responsibilities are lessened. The adjustment for men is usually abrupt, and therefore more difficult. On the day before his 65th birthday, a man is an employed and productive member of society; on the day after his 65th birthday, he is retired—no longer employed, no longer productive.

It is clear that planning for retirement should be done in the middle, not the later years. With proper planning there can be many advantages in retiring:

- —freedom from deadlines and day-to-day responsibilities;
- —escape from the competitive stresses of the world of work and business;
- —time for family, for friends, for one's self;
- —the opportunity for travel;
- —time for educational and recreational pursuits;
- —the opportunity and time to serve others, one's community.

Practitioners can play a very important role in assisting people to prepare for retirement, by prodding them to act and by giving advice. Retirement planning should include:

- —discussions between husband and wife, preferably long before retirement is to begin;
- —decisions about how and where to live, what they want to do;
- —consideration of the marital adjustments that are often necessary after retirement, particularly the potential constant presence of the husband at home;
- —consultations with the family lawyer or banker or accountant to make appropriate financial arrangements and to be sure financial affairs are in order;
- —being informed about community resources that may be of help and interest.

*A summary of some "do's" for promoting and maintaining health in aging*

Practitioners should urge older persons to:

1. Have periodic health examinations, including dental examinations, and regular immunizations.
2. Eat a balanced diet.
3. Exercise in keeping with their capacities.
4. Sleep under conditions conducive to rest.
5. Refrain from harmful habits and excesses.
6. Avoid self-diagnosis and self-medication.
7. Develop the ability to enjoy leisure time and its use.
8. Prepare early for retirement.
9. Maintain contact with others for inspiration and stimulation.
10. Develop and foster healthy relationships within the family.
11. Attempt to understand themselves as individuals and establish habits in keeping with their own self-image.
12. Accept themselves as they are, with their strengths and limitations.
13. For those who have lived in the church, maintain their affiliation and carry on formal religious practices.
14. Know their community resources.

## HEALTH PROTECTION AND THE PRACTITIONER

The practitioner seen most often by the well and sick aged is the physician. He is at once the healer and the protagonist in a health care program. His position is pivotal in helping his patients obtain other services of health and health-related practitioners and in directing the integration of these services. For this reason, this chapter should be read by physicians and other practitioners—public health workers, health educators, visiting nurses, homemakers, social workers, and others.

Besides seeing interrelationships, practitioners should bear in mind that debility and disease are not the inevitable or even the common characteristics of the elderly. Older people, it has been said, are normal people who may become ill.

The prime focus should be on the individual, not the disease. In fact, the responsibility of the physician as chief practitioner has become total care of the total person in his total environment. His goal is the attainment and maintenance of the maximum degree of physical and mental well-being of which the aging individual is capable.

Obviously, health in old age is much the result of experience in earlier life. A health maintenance effort should start long before age 65. The physician and other practitioners who are aware of late-life situations can sensitize colleagues to the need for a whole-life health maintenance effort.

Good health habits and practices should be encouraged at any age. An annual physical examination undoubtedly is a foremost investment in health, and should be encouraged at every opportunity. The periodic physical examination gives the physician the valuable opportunity to gain information and insight on the physical, social, and mental status of the patient, and to learn about changes in his daily pattern of living that may have a bearing on his health status.

Physicians may find growing support in the community for health maintenance efforts. For example, senior citizens centers are incorporating activities for health promotion such as: health education, exercising, disease screening, and counseling and referral for medical care to private physicians or community resources.

Because patients generally view the physician as an authority figure, this confidence can be used to encourage individuals to follow health recommendations. By the same token, physicians should be aware that feelings and expectations are readily communicated to the aging patient. Those who serve the elderly should introspect for subconscious fears: aging is a threat to all and we would much prefer to avoid it. Yet, practitioners often are ignorant about the realities of the aged and their capabilities. Much can be learned from the aged. Here is what a psychiatrist, Dr. Robert N. Butler, has to say:

"The majority of older people are not 'problems,' do not die in institutions, do not depend upon the state. Indeed, according to the 1950 census, 96 percent of those 65 years and older reside in the community. The majority of the older generation are constructive, active, thinking human beings who have much of value to teach us—they are a real source of ideas about life.

"The final psychological development of man is largely ignored by contemporary personality theory. The meanings of survival, death, time,

of self-perceived changes, losses, grief or loneliness, and of isolation are among the great themes about which older adults are particularly experienced—but which, it must be noted, are also relevant to the experience of the young.

"Through the often confusing, rapidly changing sociocultural processes of this era—of any era—there is much to gain by also directing attention to the fundamental experiences of growth and development, of living, of aging, of facing death, of dying."

No matter what else the physician does with a patient, he is always administering psychological treatment—whether or not he regards it as such, whether or not he is conscious of it. This brings us to the first of several essential points: the patient-physician relationship is a crucial factor in health maintenance. The physician must not only communicate concern and understanding; he must give tangible assurances of care.

Elderly patients require more attention than do younger patients. They have developed a host of individual differences and attitudes. The physician will find that taking histories is generally long and painstaking. Patients are often forgetful, either too talkative or too timid. Because care is often long-term, it usually requires more continuous service, more house calls than the care of younger patients.

The patient's history—social, economic, medical—must be known and studied in considerable detail. The physician needs to know family history to become aware of any hereditary tendencies.

Many elderly patients are likely to have economic limitations, and extensive medical care will often prove a burden. The physician should know that Medicare has limited benefits.

The physician will find strong support from research workers and community resources, although too frequently he does not make adequate use of the latter. He should make himself familiar with the services available to him and to his patients.

Above all, he must have a liking for elderly people.

*A Basic Program for the Physician and His Aging Patient*

In a program of health promotion and maintenance, individualization of goals is fundamental. Underlying these individualized goals are certain essential activities which collectively comprise a program for the physician in relation to his aging patient.

1. *Correct and balanced diet and maintenance of optimum weight*

The patient should be aware of the harmful consequences of overweight, such as reduction of life expectancy, tendency to diabetes, increased incidence of coronary occlusion and hypertension.

2. *Optimum activity regimen*

Such a regimen will help to maintain musculoskeletal sufficiency and normal posture; help prevent muscle tendon contractures that limit mobility; preserve strength for locomotion; maintain correct alignment of joints; stimulate circulation and metabolism; and engender the emotional satisfaction and encouragement derived from physical competence and independence.

3. *Prevention of physical injury*

Physical injury is one of the greatest causes of death among all ages, but particularly among the aged.

4. *Prevention of metabolic and endocrine depletions*

Metabolic and endocrine depletions must be prevented before they become irreversible. Careful chemical and hormone measurements are required.

5. *Prevention of chronic states and discovery of malignancies*

Vigorous early therapy will prevent irreversible anatomic changes later.

6. *Immediate application and use of proven new research findings*

Routine and static programs should be avoided.

All these elements are interrelated. Thus, delay in correcting orthopedic, hearing and eye defects will make the aging person more prone to accidents and injury. Similarly, inadequate

dental care can lead to deficient nutrition which in turn can result in multiple system malfunction.

The rationale for an activist role rests on:

1. The view that aging ultimately increases vulnerability to disease, accident, and socio-psychological insult;

2. The aged person's physical tolerance of stress and pain and his acceptance of poor health can disguise the usual signs of illness.

Both points mean that the physician and other practitioners must be sensitive to changes in the patient and ready to treat them rapidly and conscientiously.

Preventing or retarding degenerative changes is a recognized objective in the maintenance of health. There is increasing evidence that some pathological changes can be reversed, and this should be included among the physician's health goals.

Other concerns of the physician include: the appearance of certain long latent or genetic disorders; psychosomatic conditions, amenable to treatment in the earlier years but more severe and refractory in later years; asymptomatic diseases and conditions. In the case of certain psychiatric symptoms, one should not be misled by the patient's age to dismiss these as irreversible chronic brain syndrome; well over half are due in part to physical disorders or reversible emotional reactions.

Finally, this program is directed at the positive estimation of the health and functional capacity of the individual, and aims at the recovery and maintenance of health and functioning.

*Health Problems of Special Concern in Aging*

1. *Cancer*

Older patients are more likely to have cancer than younger ones. For example, lung cancer is becoming or is now the most frequent malignancy; carcinoma of the breast is particularly important in women; prostate cancer is very frequent in men; involvement of the gastrointestinal tract is important in all older people. Generally, the malignancy seen in older patients is the result of pathologic states that may have been active for as many as twenty years. A program for detection of malignancy and premalignant conditions should be encouraged beginning in middle age.

2. *Cardiovascular diseases*

a. Essential hypertension—This condition is characterized by increased peripheral resistance and elevation of both the diastolic and systolic blood pressure. Properly administered drug therapy regimens are usually effective, reducing the pressure gradually so as to prevent acute insufficiency of cerebral or renal blood flow.

b. Hypertensive heart disease—This must be distinguished from the more common arteriosclerotic hypertension, which is much less amenable to drug therapy. In the case of arteriosclerotic hypertension, the pulse pressure and the systolic pressure rise, whereas the diastolic pressure commonly remains unchanged. On the other hand, hypertensive heart disease is associated with a rise in both systolic and diastolic pressures.

c. Arteriosclerosis—Perhaps the most significant condition in the aging, hardening of the arteries appears in most elderly persons. Narrowing of the coronary arteries of the heart occurs gradually, progressively reducing blood flow with attendant complications such as angina pectoris, increased myocardial irritability and major arrhythmias (cardiac arrest), and myocardial infarction. Progress in diagnosis and treatment of this condition will reduce greatly general morbidity and mortality rates among the aged. However, arteriosclerosis is neither inevitable nor irreversible. Much of it is preventable. Proper medical supervision and the patient's attention to prescribed activity and diet patterns are indispensable to prevention and treatment.

d. Cerebral thrombosis—Prophylaxis for this vascular condition is one of the major objectives of medical research. Often, because of lack of significant early warning signs, little can be done to prevent cerebral thrombosis. However, many of its disabilities can be avoided by aggressive treatment during the acute phase of illness and by a vigorous rehabilitation effort. Frequently, certain emotional reactions are found in stroke patients for which the physician will

seek effective psychological or pharmaceutical adjunctive treatments.

e. Peripheral vascular disease—It is generally recommended that individuals with this condition should stop smoking and give rigid attention to problems of hygiene and minor trauma to the lower extremities.

3. *Diseases of the endocrine glands*

These glands may function inadequately, but the patient can live as long as they do not fail completely. However, endocrine function has a significant effect on other conditions, and has a great impact on normal functioning and everyday activities. Consider, for example, the effects of thyroid or adrenocortical insufficiency, the problems following menopause or diabetes.

4. *Obesity*—The physician must advise his patient about the harmful consequences of overweight. He should help him in any necessary readjustment of caloric intake and food habits. Where necessary, he must help the patient carry out a weight reduction program. In the aged, the program must be rigorous, although not drastic, to achieve significant weight loss.

5. *Musculoskeletal disease*—Muscular insufficiency causes very common disabilities which are usually preventable and correctable. Generally speaking, insufficient attention is given by both physician and patient to the patient's potential for physical training and postural exercise. Too often, the elderly patient's capacity and need for regulated but regular exercise are underestimated.

*Medical Examinations*

Regular medical check-ups including thorough examination are a "must" in a program of health promotion and maintenance for the aging. A disease is often occult; for example, cancer often makes slow progress in the elderly and may not cause any particular dysfunction. A most common cause of missed diagnoses is the physician's thoughtlessness.

The elderly patient is a personality and a social being. The examination should include a detailed inquiry into the patient's state of well-being, his social life and habits, recreation, eating, sleeping. It should include his own and his family's history of disease, his familial and environmental situation. It should provide, particularly in the first interview, an opportunity for exploring his personality and assessing his reaction to his environment.

A psychiatric examination by the physician is important. Even socially intact patients should be queried as to a precise orientation on person, place and time, the latter being the most sensitive. The physician should be alert to organic brain syndrome as well as indirect clues to neurotic or psychotic reactions. He should probe directly for intellectual deficit, depressed affect and pathological suspicions, imperceptions or ideas of reference. Most severe psychiatric disorders in the aged respond to treatment. Because these disorders which disrupt life profoundly can be treated, early diagnosis is essential.

Time is important; the physician has too little for all he must do. The patient often wants more than the physician can give. Nevertheless, the patient should have enough time to discuss his various symptoms and complaints, and not only the recent ones. The initial interview and examination should satisfy the patient that the physician is prepared to help and understand. Most of all, it should establish the basis for a sound relationship and for the patient's understanding of himself and his health. Several shorter periods spaced over a few days or even weeks will be easier to schedule and build greater rapport.

Taking the history can be extremely time-consuming. The self-administered history may be the answer. The Cornell Medical Index is an example of a form that can elicit from the patient meaningful information of help to the physician in pin-pointing areas for special consideration. There is one form for men, another for women. Simply written and easily understandable, it contains 195 questions covering 31 systems and and symptom complexes. The nurse instructs the patient briefly before he fills out the form. It becomes a basic part of the patient's record.

Excessive modesty and shyness in the patient should be dealt with before the examination. It should be at a leisurely pace, without a rapid

succession of tests which may be physically and psychologically wearing.

Also common is a tendency for patients to hide their symptoms—or to predetermine the diagnosis. On the other hand, subclinical and asymptomatic conditions are very frequent and should be a most important target of the physician's examination.

During the physical examination and the interpretation of laboratory tests, the physician must distinguish between what is "normal" for the patient's age and what is "abnormal". He should assess the patient's perceptive faculties and be very much aware of any impairment.

Finally, the check-up and examination must be directed not only towards the discovery of new diseases (if anything there is too much emphasis on this), but also to the evaluation of the individual's functional capacities, the establishment of goals, and a program for maintaining and extending these capacities.

The time and money—particularly the latter—of the elderly patient must be weighed in the selection and frequency of laboratory tests and procedures and in specialist referral.

*Immunization*

The well aging need protection against infectious diseases as do any other members of the community. In general, infectious diseases involve a greater threat of serious morbidity or mortality among the aged than they do in younger age groups.

In considering immunizations for the aging population, it is important to differentiate among those diseases for which the aging individuals are likely to have had earlier protection, those for which immunity may have waned but are no longer crucial such as measles or mumps, and those which deserve continuing special attention such as smallpox, diphtheria, tetanus, poliomyelitis and influenza.

Age per se is no contraindication to any immunization. Age may actually be a strong indication. However, the physician must tailor the administration to individual needs and tolerances as determined by his knowledge of the vaccine and of his patient. For this reason, the private physician or a special geriatric clinic is preferred to routine immunization clinics where administration is handled on a mass or standardized basis.

Retirees are engaging increasingly in foreign travel; immunizations should be brought up to date. It is important to begin these programs well in advance, so that small, repeated doses of one agent at a time may be given. This will minimize reactions to the multiple inoculations necessitated by last-minute rush. This is undesirable at any age, but particularly for the aged.

*The following immunizations should be given special attention:*

—*Smallpox.* Vaccination should be repeated throughout life at intervals of 5 to 10 years. Those who may be traveling abroad should be vaccinated every 1 to 3 years. Those with a known exposure should be vaccinated immediately. Vaccination scars should never be considered as evidence of current immunity, nor should the physician take the patient's word about having had the disease.

—*Diphtheria.* If exposed, the elderly can get the disease; therefore, immunization should be done. Because of possible severe reactions, toxoids should be administered in small doses over a period of weeks.

—*Tetanus.* This still has a high mortality rate, especially in the age groups over 40 years. Immunization is particularly important for retired persons who engage heavily in "do it yourself" activities and gardening. Booster doses should be given at 5-year intervals, and immediately after occurrence of a tetanus-prone wound. The physician should consider use of tetanus antitoxin of human origin (immune globulin) which is devoid of the hazards of horse serum.

—*Poliomyelitis.* This is still a hazard to the well aging. Complete vaccination is recommended for all three types of polio vaccine, even for patients who have had a diagnosed case of one type earlier in life. Oral vaccine is preferable. It should be administered directly on the tongue; the elderly patient

may break his teeth or dentures, may gag or choke on a sugar cube.

– *Influenza.* Flu hits the elderly harder than other age groups. Annual immunization is recommended, early each fall, in advance of any epidemic. If an epidemic occurs late in the season, or is prolonged, a booster dose may be advisable in six months to assure high level protection.

– *Gamma Globulin.* This should be considered for the prevention of infectious hepatitis, along with those vaccines recommended for particular areas.

## HEALTH PROTECTION AND THE COMMUNITY

The goal of practitioners is to help the individual maintain and improve his health. The community's responsibility is to provide the range of coordinated services that support this goal. Because certain services are needed by so many people and require financing beyond other abilities, often the community alone can provide them. The manner in which it meets the needs of its aging members is a measure of the community's self-regard as well as regard for its senior members. For the health of the aging population and the community's health in general are interdependent.

Communities must offer a variety of alternatives to match the variety of individual needs. Without variety, real choice is absent. For example, an aged person has no real choice to remain at home rather than live in an institution if services are lacking for home care, including homemakers, visiting nurses, home medical care and portable meals.

In view of national legislation and other recent changes, communities may be more willing and better able to furnish services. Gaps exist because of certain longstanding societal values, including youth orientation. There is no doubt that planning for the aging is difficult and requires knowledge of complex factors, such as retirement, widowhood, income reduction, loss of physical function.

Organizing community resources for the health maintenance of the aging is little different from organizing resources for other population groups. The debilitated young person and the debilitated aged person both can benefit from home health services, for example. However, if there is a difference between meeting the needs of the aging and of others, it is this: the effort has to counter stereotypes and misconceptions of the elderly, particularly a bias against age.

A sustained community must be generated from within, not outside, the community. All groups should participate in planning, even those with only peripheral interest in health maintenance.

Sound planning depends on the community's knowledge of itself, of its aging population, of trends in efficient delivery of care without sacrifice of dignity, of manpower needs, and of financing mechanisms. Priorities should be developed on which services need to be set up first. Communication among participants in planning and operation is essential—not only the leaders and workers in the effort but the aging person as well.

In general, community planning must consider goals and circumstances in the design of specific services. For instance, services should be designed to permit the older person to participate in community life, utilize his capacities in ways recognized as socially worthwhile, and adjust to new social roles. Translating these goals into concrete programs requires knowledge of the characteristics of the aging population and the factors that make for dependency, such as income reduction, physical limitation, intellectual impairment, and poor housing arrangements.

With these factors in mind, the community designs such services as recreation and day-center programs, retirement preparation programs, and health care services.

Various practitioners can be the bridge between the community and the individual. They can recognize and help correct gaps and breakdowns

in services. Physicians, for example, can work through the medical society, making use of experience with patients and health resources.

What health-maintenance activities might a community consider for the aging?

Before going into detail, two general considerations should be presented. First, the services must be flexible, permitting the individual to move easily from one to another as needs require. One way to provide for interrelated activity is through a multiservice agency, a one-stop source of help. Second, services should be comprehensive, including prevention, early diagnosis and treatment, and rehabilitation.

Some specific vehicles for health maintenance include:

1. Diagnostic centers.
2. Geriatric hospital facilities, including daytime nonresident care.
3. Hospitals with ambulatory and home-care programs.
4. Nursing and convalescent homes.
5. Visiting nurse programs.
6. Programs lending hospital equipment for home use.
7. Vocational rehabilitation and counseling services.
8. Physical rehabilitation units.
9. Homemaker, friendly visitor, meals-on-wheels and other home services.
10. Housing projects and placement facilities, including listing of good quality foster homes, nursing homes, and a variety of public and private dwellings.
11. Programs for financial assistance, income-maintenance, and employment opportunities.
12. Information and referral services that tell the individual where to obtain legal, family, recreation, and welfare help.
13. Counseling services in mental health and family needs.
14. Leisure time facilities and programs.
15. Public health clinics and other facilities offering health information, screening and immunization programs, and safety and accident prevention programs.

Let's take a closer look at some of the things a community can do in health education, safety and accident prevention, and multiple screening efforts. These activities are particularly open to community action.

In developing health education programs, practitioners and other community leaders should define the important information to be communicated, such as nutrition, first aid, safety and where to go for health assistance. The content of the health education program should be evaluated in terms of the audience. Do the elderly need a lot or a little information on certain points? Is the material prepared so as to be easily understood?

It is essential to evaluate in advance what the follow-through needs may be. For example, if an education effort is successful in informing and motivating the audience to obtain health examinations, will these be available in a convenient place and at a price they can afford?

The most effective ways of reaching the elderly must be determined. For example, union groups, nationality groups, churches, and community and neighborhood centers can be effective channels.

In safety and accident prevention, a community should review—from the standpoint of the characteristics of the aging—whether its housing and building codes provide for maximum safety and are thoroughly enforced. Traffic hazards should be eliminated. Public transportation can be improved by making routes and stops easily accessible to the elderly. Driver-education programs in high schools can emphasize consideration for the elderly driver and pedestrian.

For the early detection of chronic illnesses—such as glaucoma, diabetes, and cervical and uterine cancer—multiple screening examinations can be effective, rapid, and economical. The examinations can provide an opportunity for influencing the individual's attitude toward health.

Effective planning is needed to avoid limitations and deficiencies of multiple screening efforts. Programs have been fragmented and isolated, have met resistance from physicians (who are often omitted in planning), have been ineffectual in encouraging periodic health examinations by a private physician or clinic, and often have been oblivious to the personality, attitudes, and socioeconomic status of the older person.

Announcing a multiple screening effort is not enough. The older person must be motivated to come. Health education efforts by personal contact and group work may be necessary. In addition, the effectiveness of multiple screening examinations to health maintenance can be enhanced by the well-aging conference. Here, a physician will look over the screening tests and a medical history, listen to the individual, and then give advice. Further, physicians of the community should be encouraged to use screening tests prior to physical examination. This may involve them more in health maintenance of the well aging.

Thus, periodic multiple screening examinations, combined with meaningful medical conferences and physical examinations, can help maintain the well older individual.

*Conclusion*

The community, the practitioner, and the aging individual must be reminded again and again that:

- The great majority of the aging population are well.
- Many of the chronic conditions they experience are not necessarily disabling in terms of the individual's present activity and mode of living; furthermore, many acute conditions can be missed because of the presumption of only chronic disease in the aged.
- These conditions must be viewed and evaluated with the norms of aging individuals and the particular patient, not those norms established for a population 30 to 40 years younger.

The responsibilities and goals of the community must be defined in terms of the conditions which tend to transform the well aging individual into a disabled or dependent aging individual. These conditions include:

- A total environmental situation which does not take into account the real needs and problems of aging.
- Societal values inimical to aging and the aged.
- An aging population which tends to withdraw from the community because it has come to accept the unfavorable image of itself projected by the rest of the community;
- The tendency to homogenize the needs of the aging population.

Increased longevity and the growing aging population confront society with many difficult problems. But solution of these problems is not beyond the capabilities of our human and scientific technology, beyond our financial capacity.

Surely, a society which attacks with self-assurance the problems related to living in such hostile environments as the bottom of the sea and outer space has the know-how and the means to solve the problems of the known environment of its own communities.

Surely, a society which is learning, with whatever difficulty, the basic human value of loving one's neighbor regardless of race, color or creed can learn to love its neighbor regardless of age.

Surely, a society which has developed its communications and systems of education to give its citizens as a nation a self-image of leadership in the world, to give its youth a self-image that the future is theirs, can give to its older citizens a self-image of worth and belonging.

Surely, a society which has learned to "individualize" the countless particles of the atom, to "individualize" the countless organisms of disease, which has built machines to "individualize" all of man's knowledge, surely such a society can learn to individualize the needs of its aging citizens and to accept aging citizens themselves as individuals.

# COMPREHENSIVE GERIATRICS AT WORK

PART IV/*chapter nine*

## PRACTICAL APPLICATION

In the preceding chapters we have discussed the principles and factors that make for the best health practice in working with the aging population. In this chapter we present two examples of these principles at work. To be sure, the examples are not typical of all the situations in which the aged find themselves or in which practitioners work. However, they do demonstrate what can be accomplished when the knowledge and skills of many kinds of practitioners and a variety of community resources are mobilized towards the single goal of providing maximum health care for the aging and aged.

*The Aging Center, Sinai Hospital, Baltimore*

Comprehensive geriatrics can be seen at Sinai Hospital, Baltimore. The hospital's Aging Center, under Dr. Frank F. Furstenberg, began before Medicare. It provides medically indigent aged persons with a range of health services. It has connections with community agencies that deal with health-related aspects of life. It also trains physicians and other practitioners in dealing with complex problems of the elderly.

Hospitalization is not the primary answer to the needs of the elderly, Dr. Furstenberg believes. Putting an elderly person in an institution should be the last, not the first, resort. Institutionalization hardens into dependency. The Aging Center is an answer to the need for a method of care that preserves independence as much as possible.

It also provides for medical intervention before disability makes institutional care unavoidable. Since medical intervention requires support by social and paramedical services to be effective, the center is a focus for these efforts, too.

How did the Aging Center move toward this objective? First, the character and problems of the community were studied. With a grant from the U.S. Public Health Service, the hospital established a "feeder" unit—an information and referral service in the outpatient department. Such a service guides the patient to the medical and other expertise that can help him.

Second, the hospital recognized that the fight for health would be lost if fought on a crisis-by-crisis approach. It set up a health maintenance clinic and a multiphasic screening center to identify disease and disability early.

Third, the hospital set up home-care services for the homebound.

Fourth, the hospital incorporated professional, patient, and community education functions in the Aging Center. Thus the center became—besides a place for treatment—a coordinating point for public and voluntary efforts in health and health-related spheres, and it became a developer of the variety of experts needed to assist the elderly.

The center has a full-time coordinator (a medical social worker), a physician-in-chief (an internist) on a part-time basis, and a full-time secretary. The center staff began operations quietly. Before any publicity, they explained center aims to city and State health and welfare agencies at conferences, luncheons, and other meetings. A contract was made with the Instructive Visiting Nurse Association to evaluate nursing and other health needs in the homes of patients and to provide counseling—all in addition to bedside care.

The hospital staff attended the center's orientation meetings. A nonprofit convalescent home offered its facilities as a halfway house

for patients trying to make the change from hospital to home care or ambulatory care.

Golden Age groups were told about the center, and publicity in the mass media came with the center's opening in June 1961.

What has the center meant to patients?

Mr. Z, a 75-year-old Baltimorean who lives near Sinai Hospital, sought help in March 1962. He had pulmonary fibrosis, emphysema with chronic bronchitis, arteriosclerosis and other conditions.

Mr. Z was assigned a physician, who decided that treatment in his home was necessary. By June he was transferred from home-care to ambulatory-care at the center. In nine months he was seen by his assigned physician and other physicians at least 19 times. He visited the dermatitis clinic, eye clinic (for conjunctivitis), neuropsychiatric clinic (for depression and suspected brain tumor), and the oncology clinic (for a nodule on one tonsil). He attended group counseling sessions to help combat depression.

In April 1963, Mr. Z was hospitalized for a broken hip sustained in a fall. The head of the femur was replaced by a prosthesis. A week after operation, he was back in the home-care program for therapy and nursing. In the next two months, his physician visited him 10 times. In July he was on crutches, visiting the center for treatment, including group counseling.

Meanwhile, his 73-year-old wife was receiving comprehensive care for obesity, diabetes, and arthritis. She attended group counseling. She began losing weight. Said Mrs. Z of the center's organized care: "More hospitals should do the same thing."

Summing up what he considers most important about the center, Dr. Joseph Matchar, the physician-in-chief, says:

"We give both medical care in depth and a broad range of services. We try to give our patients time and understanding as well as medical attention. We try not to 'slough them off.' We try to become involved in understanding the social and emotional problems which are affecting their physical condition."

Dr. Matchar notes that the patient's initial visit includes a complete history-taking, electrocardiogram, blood and urine analysis, chest X-ray, and other tests and consultation as indicated. "We send many of the male patients to the genitourinary clinic for special attention. We find that a very large percentage should have eye and hearing examinations and are in need of dentures," he adds.

"It has become clear to us that we can't deal with just the isolated problems of an older person. We must deal with him as an individual, for his illness is definitely related to his social, economic, and emotional problems," Dr. Matchar says.

He finds nearly all the elderly are depressed because of such deprivations as loss of income, of family and friends, and of freedom of action because of infirmity. Recreational and group therapy are often advisable, he says.

Young physicians and nurses become acquainted with geriatric patients through the center. Sinai Hospital's department of medicine assigns a different assistant resident to the center every six weeks. Students from the Johns Hopkins School for Hygiene and Public Health come to observe at the center.

From their growing knowledge of geriatric patients, center personnel give seminars on chronic disease and aging at Hopkins and other medical schools and at social-welfare agencies.

*The Queensbridge Health Maintenance Service for the Elderly*

Another example of comprehensive geriatric care is the Queensbridge Health Maintenance Service for the Elderly. This program was established in 1961 under the leadership of the New York City Department of Health in Queensbridge Houses, one of the oldest and largest federally-aided public housing projects.

Cooperating agencies included the Department of Hospitals, the Welfare Department, the Community Mental Health Board, the New York City Housing Authority, the Visiting Nurse Service of New York, the Jewish Community Center of Queens, and the Jacob Riis Neighborhood Settlement House.

Major financial support comes from the New York City Department of Health. In April 1962,

additional support for evaluative purposes was provided through a 3-year grant from the Public Health Service under the provisions of the Community Health Services and Facilities Act of 1961.

At the outset, the Department of Health, in planning for a health and medical service at the housing project, recognized the many advantages inherent in hospital affiliation. The Commissioner of Hospitals agreed to such an affiliation, and designated the clinic at Queensbridge as a unit of Elmhurst City Hospital's outpatient department. The clinic is administered and staffed by the Department of Health, but physicians are also members of the hospital staff.

The full-time staff of the clinic includes a public health nurse, a registered nurse, a social work consultant, two public health assistants, three clerks, and a messenger; the part-time staff consists of 8 internists, a proctologist, a psychiatrist, a podiatrist, an optometrist, and a physician-in-charge.

Approximately 1500 of the Queensbridge residents are age 60 or older; all of these individuals are eligible for free care at the clinic.

Prior to physical examination, the patient's weight, height, and visual acuity are recorded. Each patient is then assigned to a specific examining physician who becomes responsible for the subsequent medical management and follow-up—in effect, this doctor becomes the patient's family physician.

Initial and annual physical examinations include pelvic and rectal examinations and such laboratory and diagnostic procedures as urinalysis, hemoglobin, differential white cell count, postprandial blood sugar, electrocardiogram, chest x-ray, serum cholesterol, tonometry, cervical smears, and examination of stool for occult blood. A routine proctoscopic examination is performed by the proctologist.

Upon completion of the examination, the physician indicates when he wants to see the patient again. In accordance with individual needs, he may also call for:

1. Additional tests to complete a diagnosis.
2. Consultation work-up at the hospital outpatient department.
3. Admission to inpatient services at Elmhurst City Hospital.
4. Services of the psychiatrist, nutritionist, podiatrist, or optometrist.

The simplest type of medical referral is to the follow-up clinic session held weekly in the Queensbridge facility. Because the facility is a branch clinic of the hospital's outpatient department, these follow-up sessions can provide simple forms of therapy prescribed by the Queensbridge medical staff, the Elmhurst City Hospital inpatient service, or by a specialty clinic of the hospital. Arthritis, rheumatism, hypertension, many cardiac, pulmonary, and gastrointestinal conditions, diabetes, and anemias are treated at Queensbridge. A large assortment of drugs and other medications are dispensed at Queensbridge through a small pharmacy the hospital has established there.

The public health nurse has a many-faceted role to play, with patient education one of the most important aspects of her job. In addition to dispensing drugs prescribed by the physician, she makes certain the patient understands the services available to him, further assesses the patient's needs, interprets and reinforces the physician's recommendations, arranges for any referrals and further tests specified by the physician, and tells the patient that he can come to see her when the need arises.

At the start of the program, mental health services were minimal, consisting of a biweekly visit by a pyschiatric social worker assigned by the Jewish Community Service of Queens. Referrals of patients to this service were made by the physician, the public health nurse, or the social worker. Two years later, a major step in expansion of mental health services was taken through the appointment of a psychiatrist to serve for two half-days a week. The pyschiatrist provides consultation to other staff members, provides patient evaluation upon request, visits institutionalized clinic patients, and conducts weekly group sessions for selected individuals. Further enrichment of the mental health program is planned.

Podiatry services have been in great demand. Conditions treated include: corns, callouses, hammer toes, nail disorders, ulcerations, fungal infections. Priority for podiatric treatment goes to diabetics and persons with peripheral

vascular disease. In many instances, dramatic benefit from this service has been noted. With treatment, many persons who had undergone many months or years of enforced inactivity because of painful feet have been restored to full ambulation. The once-a-week session was increased to two in May 1963, and to three in May 1965.

The optometrist, who has two sessions weekly, receives referrals from the medical staff. In addition, any patient who wears glasses constantly is examined routinely. It became quickly apparent that many of the individuals with low visual acuity were without glasses or required prescription changes. A significant amount of ocular pathology has also been uncovered. All pathological conditions requiring attention are referred to the City Hospital Eye Clinic for diagnosis and treatment. The Long Island City chapter of the Lions Club subsidizes the purchase of eyeglasses for those who cannot afford them and are not eligible to receive them through welfare sources.

The home aide service was conceived as part of the total health maintenance program. It is used to tide a patient over a temporarily difficult or critical period, and its major objective is to avoid the need for institutionalization. Screening of applicants, hiring, training and supervision of the home aides have been the responsibility of the social work consultant.

Opportunities for work in a sheltered workshop were provided as a result of arrangements made with the Bird S. Coler Memorial Hospital and Home, a municipal institution affiliated with New York Medical College and providing long-term care and special services for the chronically ill. The sheltered workshop operated by this institution is a short bus ride from the housing project. For the individual participating, this provides a valuable opportunity for constructive activity and additional income; for the hospital and its affiliated medical school, it offers an opportunity to study the work-centered problems of older persons and the ability of a sheltered workshop to meet, through use of a common program, the often differing needs of hospital patients and community residents.

The Queensbridge demonstration has paved the way for the establishment of other health maintenance programs in five housing projects for the elderly. In these programs, centers distant from hospitals are to be more fully equipped than those close by. At the same time, fully integrated health centers, including a maintenance service for the elderly, are planned for incorporation in hospitals under construction in the city.

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